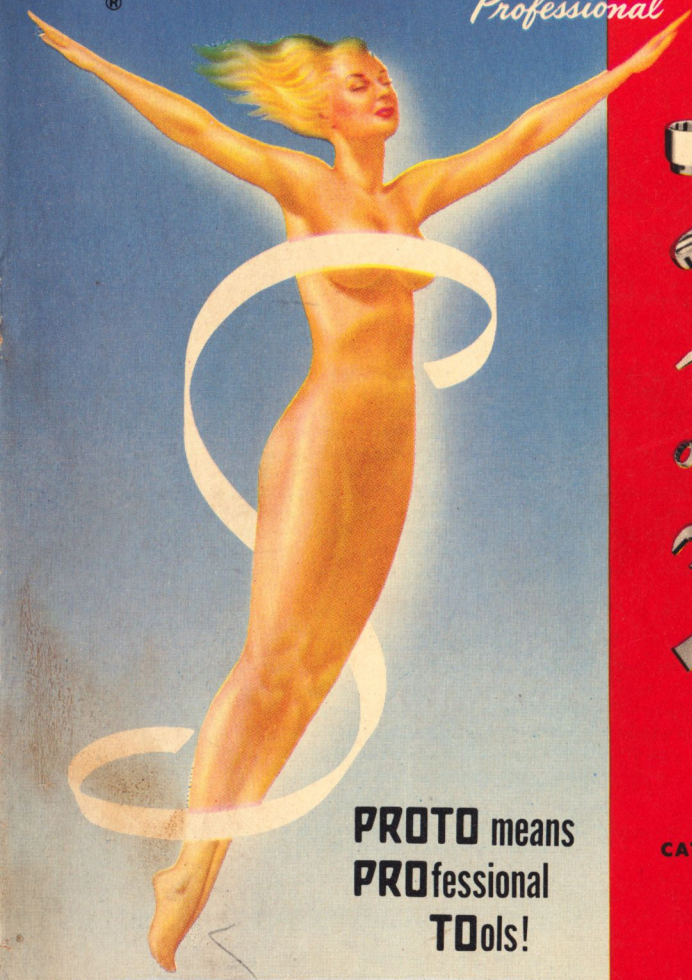
PROTO® TOOLS

Professional Quality



PROTO means
PROfessional
TOols!

CATALOG NO. 5124M

Your Guide

TO FINE HAND SERVICE TOOLS FOR

AUTOMOBILES
TRUCKS, BUSES

AIRPLANES
TRACTORS
FARM IMPLEMENTS

MACHINES
OTHER FACTORY EQUIPMENT
POWER PLANTS

RAILROADS
MINES
REFINERIES

OIL FIELDS
CONSTRUCTION
UTILITIES

SHIPS
AIR CONDITIONING
REFRIGERATION

PLUMBING
APPLIANCES
OFFICE EQUIPMENT

HOBBIES
HOUSEHOLDS

CATALOG NO. 5124M

with a Complete Listing of

PROTO means **PRO**fessional **TO**ols

GUARANTEE

PROTO tools are guaranteed to perform the work for which they are designed, and to last as long as is consistent with ordinary wear. Any tool found defective in workmanship or material, and returned to the Factory with charges prepaid, will either be replaced, repaired or credited at current prices (as deemed best by us), provided it has been used for the purpose for which the tool was designed. Power and impact sockets are designed for power equipment, but standard thin-wall sockets are not intended for such use. Special tools not listed in our catalog or price list do not carry the regular guarantee, because they have been manufactured to the original purchaser's specifications. Also, tools that have been ground or altered in any other manner from their original design are not covered by the guarantee.

SPECIAL TOOLS

In addition to the standard tools listed in this catalog, a great many types of special tools are made for manufacturers and other tool users. Inquiries are welcomed on tools of your own specifications, required to solve production or maintenance problems. To obtain more information on standard tools, special tools or any tool problem, see your nearest PROTO tool distributor or write to our Contract Department, giving your name, position, company and company address.

NOTICE

Prices, design, finish, steel analysis and other specifications are subject to change, due to Government restrictions or other causes.

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PLOMB TOOL COMPANY

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Cable Address — PROTOTOOLS

EASTERN PLANT AND WAREHOUSE
583 Allen Street • Jamestown, New York • Phone 7905

SEE LATEST PRICE LIST FOR PRICES

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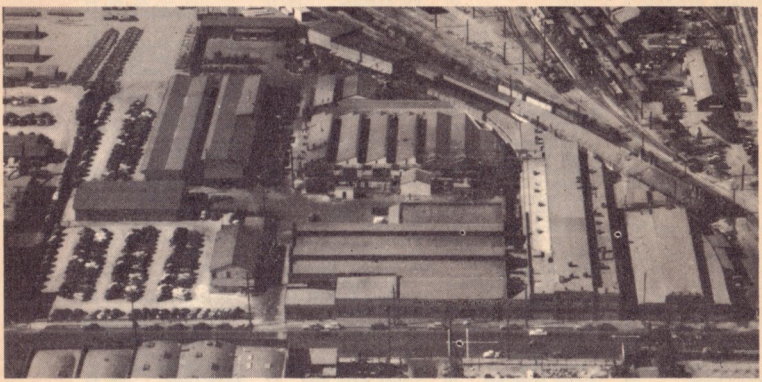
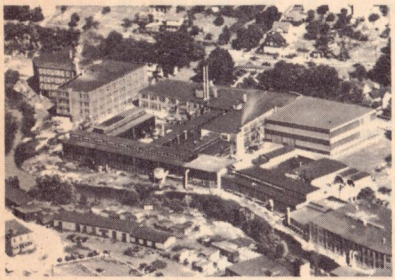
PROTO TOOLS
LOS ANGELES

FOUR MANUFACTURING PLANTS

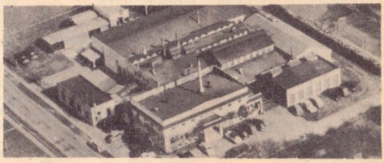


Main Factory and Offices in Los Angeles, Calif.



Jamestown, N. Y., Factory and Warehouse

Schiller Park (Chicago), Ill., Factory



Milwaukie (Portland), Ore., Factory

Founded in 1907, the manufacturer of PROTO tools is the World's largest producer today of high quality hand service tools.

The four factories illustrated above are modern in organization and facilities, and new buildings, new equipment and more efficient manufacturing methods are continually being added.

The company's leadership is attributable mainly to intensive research, sound designs, use of special alloy steels, better manufacturing and hard work—all directed toward improvement of quality.

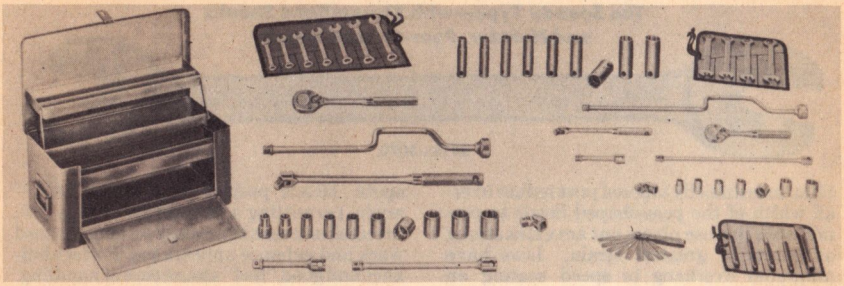
It has always been and always will be the ideal of the company to make the finest of quality hand tools.

TOOLS YOU NEED—WE MAKE!

By constantly checking requirements of tool users and by pre-testing designs in the field before starting manufacture, the company maintains a very complete and practical line of tools. If you need a tool of a type the company makes that is not in this catalog, contact your Distributor or the company's Contract Department regarding its availability.

Any ideas you may have for new tools or suggestions for improving present tools will be welcomed and appreciated.

NO. 9989C MASTER TOOL SET



An ideal set for industrial maintenance, providing needed tools for trouble-shooting and reducing time in breakdowns. Also a fine basic set for repair of cars, trucks, tractors, refrigerators, etc. Gives very wide coverage for a low investment. Includes No. 9989 tool chest and the seven basic sets listed below. Weight, 39 Lbs.

No. 000A Short Feeler Gauge Set

NO.	DESCRIPTION
003	Gauge, .003″ Thick
004	Gauge, .004″ Thick
005	Gauge, .005″ Thick
006	Gauge, .006″ Thick
008	Gauge, .008″ Thick
010	Gauge, .010″ Thick
012	Gauge, .012″ Thick
015	Gauge, .015″ Thick
018	Gauge, .018″ Thick
000C	Gauge Holder

No. 3 Punch and Chisel Set

413/8	Center Punch
47 5/16x1/8	Rivet Punch
47 3/8x3/16	Rivet Punch
505/16	Starting Punch
86A1/2	Cold Chisel
2411	Vinyl Kit

No. 1200H Combination Wrench Set

1212	3/8″ Openings
1214	7/16″ Openings
1216	1/2″ Openings
1218	9/16″ Openings
1220	5/8″ Openings
1222	11/16″ Openings
1224	3/4″ Openings
2404	Vinyl Kit

No. 3400G Tappet Wrench Set

3425	7/16″x1/2″ Openings
3426	1/2″x9/16″ Openings
3426	1/2″x9/16″ Openings
3430	9/16″x5/8″ Openings
2405	Vinyl Kit

No. 5200AA 3/8″ Drive Socket Wrench Set

5212	Socket, 3/8″ Op.
5214	Socket, 7/16″ Op.

No. 5200AA Set—Contd.

NO.	DESCRIPTION
5216	Socket, 1/2″ Op.
5218	Socket, 9/16″ Op.
5220	Socket, 5/8″ Op.
5222	Socket, 11/16″ Op.
5224	Socket, 3/4″ Op.
5249	Rev. Ratchet, 7″
5260	Extension, 3 1/2″
5262	Extension, 12″
5265	Hinge Handle, 7 3/8″
5270	Universal Joint
5280	Speed Handle, 16 1/2″

No. 5300B 1/2″ Drive Deep Socket Set

5340	1/2″ Opening
5341	9/16″ Opening
5343	5/8″ Opening
5344	11/16″ Opening
5345	3/4″ Opening
5347	13/16″ Opening
5348	7/8″ Opening

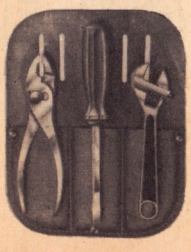
No. 5300B Set—Contd.

NO.	DESCRIPTION
5349	15/16″ Opening
5351	1″ Opening

No. 5400AA 1/2″ Drive Socket Wrench Set

5414	Socket, 7/16″ Op.
5416	Socket, 1/2″ Op.
5418	Socket, 9/16″ Op.
5420	Socket, 5/8″ Op.
5422	Socket, 11/16″ Op.
5424	Socket, 3/4″ Op.
5426	Socket, 13/16″ Op.
5428	Socket, 7/8″ Op.
5430	Socket, 15/16″ Op.
5432	Socket, 1″ Op.
5449	Rev. Ratchet, 10 1/4″
5461	Extension, 5″
5463	Extension, 10″
5467	Hinge Handle, 15″
5470	Universal Joint
5480	Speed Handle, 18″

No. 9900C Household Gift Set

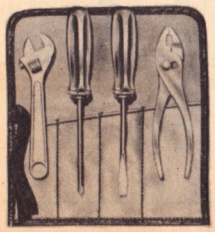


Has handiest tools for most home and many professional jobs. In belt-type kit. Contents:

NO.	DESCRIPTION
276	6″ Slip Jt. Plier
706S	6″ Adjust. Wrench
9804	Screwdriver, Plastic Hdl., 9/32″ Bit
2450	Leather Kit, 7″x9″

Weight, 1.28 Lbs.

No. 9900D Car or Household Gift Set



Handy set to carry in car or keep in kitchen. Contents:

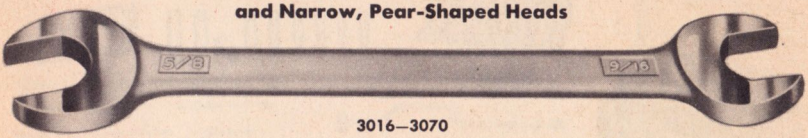
NO.	DESCRIPTION
276	6″ Slip Jt. Plier
706	6″ Adjust. Wrench
9604	Screwdriver, Plastic Hdl., 9/32″ Bit
9684	Screwdriver, Phillips No. 2 Bit
2408	Kit, 8″x13 1/4″

Weight, 1.24 Lbs.

PROTO TOOLS
LOS ANGELES

OPEN END WRENCHES — 15° ANGLE

The Speedy Type—with Streamlined Shanks and Narrow, Pear-Shaped Heads



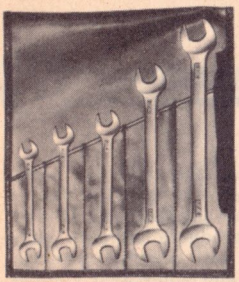
3016—3070

Slim, scientifically tapered jaws reduce overall width of the pear-shaped heads to permit work in close places but are extra strong at points of greatest strain. Jaws have minimum overhang to speed seating on nut, increase strength and prevent jaw spreading. Opening bases have a radius determined for high strength. Heads have the correct thickness. Small radii where head and shank join increase useability in tight spots. Heads project from shank at 15° angle, permitting a turning arc of only 30°. Streamlined shanks are easy on hands, speed work and enhance appearance. Perfect balance and good "feel" assure ease of handling. Great strength and toughness—giving extra life—result from use of special alloy steels, scientific grain-flow forging, and correct heat treatment. Chrome plating gives rustproof, lustrous-appearing wrenches.

NO.	NOMINAL OPENING SIZES	AMER. STD. HEAVY		AMER. STD. REG. BOLT HEADS		AMER. STD. REGULAR NUTS		AMER. STD. LIGHT (SAE)		HEAD THICKNESS	OVER-ALL LENGTH	WT., LBS.
		SMALL	LARGE	SMALL	LARGE	SMALL	LARGE	SMALL	LARGE			
3016	3/16" x 1/4"	....	....	....	....	....	....	....	....	11/64"	4 1/8"	.02
3018	1/4" x 5/16"	....	....	....	....	....	....	....	....	11/64"	4 1/2"	.04
3020	5/16" x 3/8"	....	....	....	1/4	....	....	....	....	13/64"	4 7/8"	.05
3021	3/8" x 7/16"	....	....	1/4	....	....	1/4	....	1/4	7/32"	5 1/4"	.05
3025	7/16" x 1/2"	....	1/4 (N)	....	5/16	1/4	....	1/4	5/16	15/64"	5 5/8"	.10
3026	1/2" x 9/16"	1/4 (N)	....	5/16	3/8	....	5/16	5/16	3/8	17/64"	6"	.14
3027	1/2" x 19/32"	1/4 (N)	5/16 (N)	5/16	....	....	....	5/16	....	17/64"	6 3/8"	.15
3030	9/16" x 5/8"	....	....	3/8	7/16	5/16	3/8	3/8	7/16	19/64"	6 3/4"	.23
3031	5/8" x 3/4"	....	....	7/16	1/2	3/8	7/16	7/16	1/2	21/64"	7 3/16"	.27
3033	19/32" x 11/16"	5/16 (N)	3/8 (N)	....	....	....	....	....	....	21/64"	7 5/8"	.26
3034	5/8" x 11/16"	....	3/8 (N)	7/16	....	3/8	....	7/16	....	21/64"	8 1/8"	.28
3035	11/16" x 3/4"	3/8 (N)	....	....	1/2	....	7/16	....	1/2	21/64"	8 9/16"	.32
3036	11/16" x 7/8"	3/8 (N)	1/2	....	9/16	....	9/16	....	9/16	11/32"	9"	.42
3037	11/16" x 25/32"	3/8 (N)	7/16 (N)	....	....	....	....	....	....	11/32"	9 1/2"	.42
3039	3/4" x 7/8"	....	1/2	1/2	9/16	7/16	9/16	1/2	9/16	23/64"	10"	.45
3040	13/16" x 7/8"	....	1/2	....	9/16	1/2	9/16	....	9/16	23/64"	10 1/2"	.51
3041	7/8" x 1 1/16"	1/2	5/8	9/16	....	9/16	....	9/16	3/4	3/8"	11 1/8"	.70
3045	15/16" x 1"	9/16	....	5/8	....	....	5/8	5/8	....	25/64"	12"	.76
3047	15/16" x 1 1/16"	9/16	5/8	5/8	....	....	....	5/8	3/4	27/64"	13"	.86
3050	1 1/16" x 1 1/8"	5/8	....	....	3/4	....	3/4	3/4	....	7/16"	13 7/8"	1.15
3051	1 1/16" x 1 1/4"	5/8	3/4	....	....	....	....	3/4	7/8	1/2"	14 7/8"	1.50
3055	1 1/4" x 1 5/16"	3/4	....	....	7/8	....	7/8	7/8	....	33/64"	16 1/4"	2.1
3060	1 3/8" x 1 7/16"	....	7/8	....	....	....	....	....	1	37/64"	17 3/4"	2.4
3061	1 1/4" x 1 7/16"	3/4	7/8	....	....	....	....	7/8	1	37/64"	17 3/4"	2.5
3065	1 7/16" x 1 5/8"	7/8	1	....	....	....	....	1	1 1/8	41/64"	19 1/2"	3.6
3070	1 1/2" x 1 5/8"	....	1	1	....	1	....	....	1 1/8	41/64"	19 1/2"	3.8

(N) Nuts Only.

OPEN END WRENCH SETS

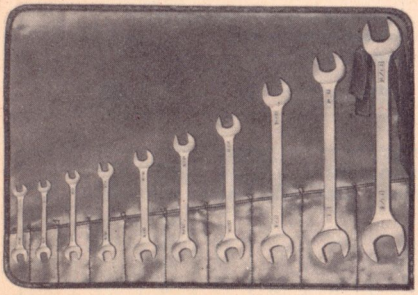


No. 3000N Set

This set is very popular because it includes five open end wrenches in the most-used range of sizes. All opening sizes are provided from 3/8" to 7/8" by 1/16" steps. It is a fine basic set to which more sizes can be added as they are needed.

Contents

NO.	OPENING SIZES	LENGTH
3021	3/8"x7/16"	5 1/4"
3026	1/2"x9/16"	6"
3030	9/16"x5/8"	6 3/4"
3035	11/16"x3/4"	8 9/16"
3040	13/16"x7/8"	10 1/2"
2405	Vinyl Kit, 10"x15"	
	Weight, 1.63 Lbs.	



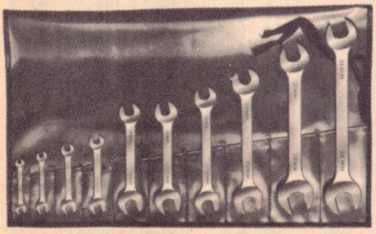
No. 3000H Set

An expanded set of ten open end wrenches for professional use. All opening sizes are provided from 1/4" to 1 1/8" by 1/16" steps.

Contents

NO.	OPENING SIZES	LENGTH
3018	1/4" x 5/16"	4 1/2"
3020	5/16" x 3/8"	4 7/8"
3025	7/16" x 1/2"	5 5/8"
3026	1/2" x 9/16"	6"
3030	9/16" x 5/8"	6 3/4"
3031	5/8" x 3/4"	7 3/16"
3035	11/16" x 3/4"	8 9/16"
3040	13/16" x 7/8"	10 1/2"
3045	15/16" x 1"	12"
3050	1 1/16" x 1 1/8"	13 7/8"
2406	Vinyl Kit, 22 1/2" x 15"	
	Weight, 4.2 Lbs.	

METRIC-SIZE OPEN END WRENCHES



No. 30000A Metric Wrench Set

All ten wrenches, listed at right, in No. 2406 Vinyl kit. Weight, 3.7 Lbs.

No. 30000R Metric Wrench Set

Six wrenches—30809 through 31819—in No. 2404 Vinyl kit. Weight, 1.37 Lbs.

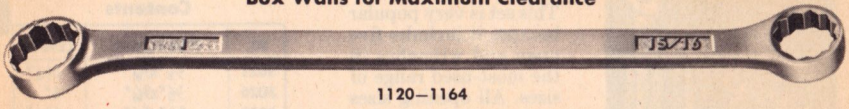
Forged from fine alloy steel and properly heat treated for extra strength and toughness. Openings are accurately milled. The ten wrenches provide all openings from 6 to 24 millimeters, by 1-millimeter steps, plus a 26-millimeter opening.

NO.	NOM. OPEN. SIZES, MM.	HD. THICKNESS, MM.	LENGTH, MM.	LENGTH, INCHES	WT., LBS.
30607	6x7	4.4	88.9	3 1/2	.04
30809	8x9	5.2	101.6	4	.06
31011	10x11	5.6	114.3	4 1/2	.07
31213	12x13	5.9	127.0	5	.12
31415	14x15	7.5	165.1	6 1/2	.23
31617	16x17	7.5	165.1	6 1/2	.22
31819	18x19	8.3	203.2	8	.38
32022	20x22	9.1	241.3	9 1/2	.60
32123	21x23	9.1	254.0	10	.56
32426	24x26	9.9	287.7	11 1/4	.78

PROTO TOOLS
LOS ANGELES

12-POINT BOX WRENCHES

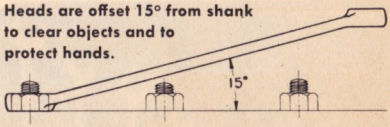
The Safety Type—with Strong, Thin Box Walls for Maximum Clearance



1120—1164

Thin but very strong box walls and resulting compact heads permit use in close quarters. Walls are thinner at the wrench tip than at the shank end of the box where greater strength is needed. Box openings are beveled for easy placement over a nut or bolthead. Small radii where the head and shank join give more clearance and increase the useable arc. Streamlined shanks provide comfortable grip, eliminate excess weight and allow long use without fatigue. Good balance and "feel" also make them easy to handle. These box wrenches are forged from special alloy steels and scientifically heat treated to give the desired strength, toughness and hardness. Modern manufacturing produces uniform, high-quality wrenches with accurate openings, which speed work and reduce wear. Chrome plating gives a bright, rust-proof finish.

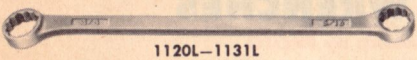
Heads are offset 15° from shank to clear objects and to protect hands.



NO.	NOMINAL OPENING SIZES	AMER. STD. HEAVY		AMER. STD. REG. BOLT HEADS		AMER. STD. REGULAR NUTS		AMER. STD. LIGHT (SAE)		HEAD THICK-NESS	OVER-ALL LENGTH	WT., LBS.
		SMALL	LARGE	SMALL	LARGE	SMALL	LARGE	SMALL	LARGE			
1120	5/16" x 3/8"	....	....	....	1/4	....	....	....	....	9/32"	4 1/4"	.05
1122	3/8" x 7/16"	....	....	1/4	....	....	1/4	....	1/4	5/16"	4 5/8"	.06
1125	7/16" x 1/2"	....	1/4 (N)	....	5/16	1/4	....	1/4	5/16	5/16"	5"	.09
1126	1/2" x 9/16"	1/4 (N)	....	5/16	3/8	....	5/16	5/16	3/8	11/32"	5 3/8"	.11
1127	1/2" x 19/32"	1/4 (N)	5/16 (N)	5/16	....	....	....	5/16	....	11/32"	5 9/16"	.12
1130	9/16" x 5/8"	....	....	3/8	7/16	5/16	3/8	3/8	7/16	3/8"	5 3/4"	.14
1131	5/8" x 3/4"	....	....	7/16	1/2	3/8	7/16	7/16	1/2	13/32"	6 1/8"	.20
1133	19/32" x 11/16"	5/16 (N)	3/8 (N)	....	....	....	....	....	....	13/32"	10"	.30
1134	5/8" x 11/16"	....	3/8 (N)	7/16	....	3/8	....	7/16	....	13/32"	10 5/8"	.34
1135	11/16" x 3/4"	3/8 (N)	....	....	1/2	....	7/16	....	1/2	7/16"	11 1/4"	.43
1136	11/16" x 7/8"	3/8 (N)	1/2	....	9/16	....	9/16	....	9/16	7/16"	11 7/8"	.54
1137	11/16" x 25/32"	3/8 (N)	7/16 (N)	....	....	....	....	....	....	7/16"	12 1/2"	.43
1139	3/4" x 7/8"	....	1/2	1/2	9/16	7/16	9/16	1/2	9/16	15/32"	13 1/8"	.63
1140	13/16" x 7/8"	....	1/2	....	9/16	1/2	9/16	....	9/16	15/32"	13 7/8"	.65
1141	7/8" x 1 1/16"	1/2	5/8	9/16	....	9/16	....	9/16	3/4	1/2"	14 5/8"	.84
1145	15/16" x 1"	9/16	....	5/8	....	....	5/8	5/8	....	1/2"	15 1/2"	.93
1147	15/16" x 1 1/16"	9/16	5/8	5/8	....	....	....	5/8	3/4	17/32"	16 3/8"	1.08
1150	1 1/16" x 1 1/8"	5/8	....	....	3/4	....	3/4	3/4	....	17/32"	17 1/4"	1.17
1151	1 1/16" x 1 1/4"	5/8	3/4	....	....	....	....	3/4	7/8	9/16"	18 1/4"	1.38
1155	1 1/4" x 1 5/16"	3/4	....	....	7/8	....	7/8	7/8	....	5/8"	19 1/4"	1.54
1160	1 1/4" x 1 3/8"	3/4	....	....	....	....	....	7/8	....	5/8"	20 1/4"	1.82
1161	1 1/4" x 1 7/16"	3/4	7/8	....	....	....	....	7/8	1	11/16"	21 1/4"	2.0
1162	1 7/16" x 1 1/2"	7/8	....	....	1	....	1	1	....	3/4"	22 1/4"	2.3
1163	1 7/16" x 1 5/8"	7/8	1	....	....	....	....	1	1 1/8	13/16"	23 1/4"	2.8
1164	1 5/8" x 1 11/16"	1	....	....	1 1/8	....	1 1/8	1 1/8	....	7/8"	24 1/2"	3.1

(N) Nuts Only.

LONG-TYPE BOX WRENCHES



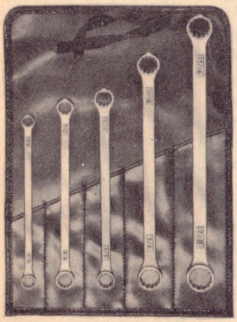
1120L—1131L

The six wrenches in this series are longer than the standard type—to provide additional leverage for hard pulls.

NO.	NOMINAL OPENING SIZES	AMER. STD. HEAVY		AMER. STD. REG. BOLT HEADS		AMER. STD. REGULAR NUTS		AMER. STD. LIGHT (SAE)		HEAD THICKNESS	OVER-ALL LENGTH	WT., LBS.
		SMALL	LARGE	SMALL	LARGE	SMALL	LARGE	SMALL	LARGE			
1120L	5/16"x3/8"	....	....	....	1/4	....	....	....	....	9/32"	7 3/8"	.09
1122L	3/8"x7/16"	....	....	1/4	....	....	1/4	....	1/4	5/16"	7 5/8"	.11
1125L	7/16"x1/2"	....	1/4(N)	....	5/16	1/4	....	1/4	5/16	5/16"	7 7/8"	.14
1126L	1/2"x9/16"	1/4(N)	....	5/16	3/8	....	5/16	5/16	3/8	11/32"	8 3/8"	.18
1130L	9/16"x5/8"	....	....	3/8	7/16	5/16	3/8	3/8	7/16	3/8"	8 7/8"	.24
1131L	5/8"x3/4"	....	....	7/16	1/2	3/8	7/16	7/16	1/2	13/32"	9 7/16"	.37

(N) Nuts Only.

BOX WRENCH SETS



No. 1100K Set

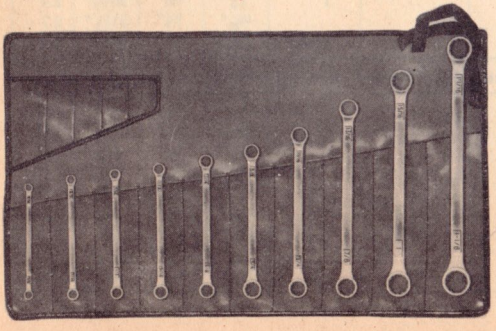
A fine basic set of five double-end box wrenches in the most-used range to which you can add more sizes as they are needed. All opening sizes are provided from 3/8" to 7/8" by 1/16" steps.

Contents

NO.	OPENING SIZES	LENGTH
1122L	3/8"x7/16"	7 5/8"
1126L	1/2"x9/16"	8 3/8"
1130L	9/16"x5/8"	8 7/8"
1135	11/16"x3/4"	11 1/4"
1140	13/16"x7/8"	13 7/8"
2405	Vinyl Kit, 10"x15"	
	Weight, 2.1 Lbs.	

No. 1100M Set

This master set of ten double-end box wrenches for professional use will take care of almost all common size nuts and bolts. It includes every nominal opening size from 5/16" to 1 1/8" by 1/16" steps.



Contents

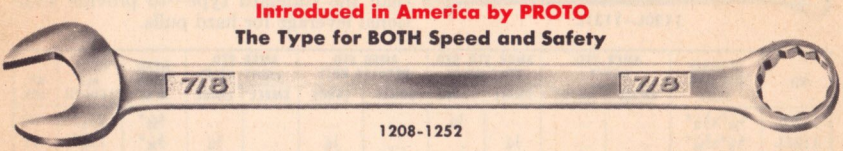
NO.	OPENING SIZES	LENGTH
1120L	5/16"x3/8"	7 3/8"
1122L	3/8"x7/16"	7 5/8"
1125L	7/16"x 1/2"	7 7/8"
1126L	1/2"x 9/16"	8 3/8"
1130L	9/16"x 5/8"	8 7/8"
1131L	5/8"x 3/4"	9 7/16"
1135	11/16"x 3/4"	11 1/4"
1140	13/16"x 7/8"	13 7/8"
1145	15/16"x1"	15 1/2"
1150	1 1/16"x1 1/8"	17 1/4"
2413	Vinyl Kit, 25"x18 1/2"	
	Weight, 5.2 Lbs.	

PROTO TOOLS — LOS ANGELES

COMBINATION 12-POINT BOX AND OPEN END WRENCHES

Introduced in America by PROTO

The Type for BOTH Speed and Safety



1208-1252

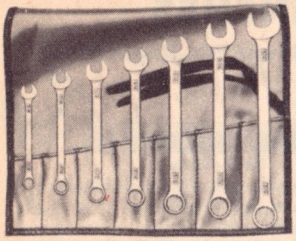
These very popular wrenches—with the same opening size on each end—have all the features of both open end and box wrenches, described on preceding pages. They are forged from special alloy steel.

Use the safe box end for breaking loose a nut, turn the wrench end for end, and then use the speedy open end for running off the nut. Just reverse the procedure for running on and cinching a nut.

NO.	NOMINAL SIZE OF OPENINGS	AMER. STD. HEAVY	AMER. STD. REGULAR BOLT HEADS	AMER. STD. REGULAR NUTS	AMER. STD. LIGHT (SAE)	HEAD THICKNESS BOX END	HEAD THICKNESS OPEN END	OVER-ALL LENGTH	WT., LBS.
†1208	1/4"	....	....	....	....	7/32"	3/16"	3"	.02
1210	5/16"	....	....	....	....	1/4"	13/64"	3 3/4"	.03
1212	3/8"	....	1/4	....	....	9/32"	7/32"	4 1/2"	.06
1214	7/16"	....	....	1/4	1/4	5/16"	15/64"	5 1/4"	.09
1216	1/2"	1/4 (N)	5/16	....	5/16	5/16"	17/64"	6"	.12
1218	9/16"	....	3/8	5/16	3/8	23/64"	19/64"	6 3/4"	.16
1220	5/8"	....	7/16	3/8	7/16	13/32"	5/16"	7 1/2"	.23
1222	11/16"	3/8 (N)	....	....	....	7/16"	11/32"	8 1/4"	.28
1224	3/4"	....	1/2	7/16	1/2	15/32"	3/8"	9 1/4"	.37
1226	13/16"	....	....	1/2	....	1/2"	25/64"	10 1/4"	.45
1228	7/8"	1/2	9/16	9/16	9/16	1/2"	25/64"	11 1/4"	.55
1230	15/16"	9/16	5/8	....	5/8	17/32"	13/32"	12 3/8"	.70
1232	1"	....	....	5/8	....	17/32"	27/64"	13 3/8"	.83
1234	1 1/16"	5/8	....	....	3/4	9/16"	7/16"	14 3/8"	.95
1236	1 1/8"	....	3/4	3/4	....	17/32"	29/64"	15 3/4"	1.23
1240	1 1/4"	3/4	....	....	7/8	5/8"	31/64"	17"	1.55
1242	1 5/16"	....	7/8	7/8	....	21/32"	33/64"	18 1/8"	1.85
1244	1 3/8"	....	....	....	....	11/16"	35/64"	19 3/8"	2.0
1246	1 7/16"	7/8	....	....	1	3/4"	19/32"	20 5/8"	2.4
1248	1 1/2"	....	1	1	....	13/16"	5/8"	21 3/4"	2.7
1252	1 5/8"	1	....	....	1 1/8	7/8"	41/64"	23"	3.2
LONG-TYPE (For Providing Additional Leverage on Hard Pulls)									
†1208L	1/4"	....	....	....	....	7/32"	3/16"	4 7/8"	.04
1210L	5/16"	....	....	....	....	1/4"	13/64"	5 3/4"	.05
1212L	3/8"	....	1/4	....	....	9/32"	7/32"	6 5/8"	.08
1214L	7/16"	....	....	1/4	1/4	5/16"	15/64"	7 1/2"	.13
1216L	1/2"	1/4 (N)	5/16	....	5/16	5/16"	17/64"	8 1/4"	.17
1218L	9/16"	....	3/8	5/16	3/8	23/64"	19/64"	9 1/8"	.23
1220L	5/8"	....	7/16	3/8	7/16	13/32"	5/16"	10"	.28
1222L	11/16"	3/8 (N)	....	....	....	7/16"	11/32"	10 7/8"	.38
1224L	3/4"	....	1/2	7/16	1/2	15/32"	3/8"	11 3/4"	.48

†6-Point Box. (N) Nuts Only.

COMBINATION WRENCH SETS



No. 1200H Set

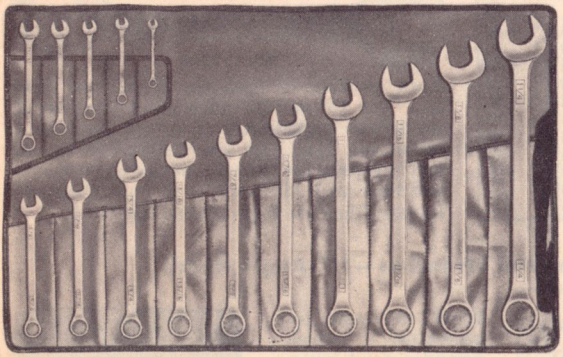
A very popular basic set of seven combination box and open end wrenches, including the most useful openings. Sizes range from 3/8" to 3/4" by 1/16" steps.

Contents

NO.	SIZE OF OPENINGS	LENGTH
1212	3/8"	4 1/2"
1214	7/16"	5 1/4"
1216	1/2"	6"
1218	9/16"	6 3/4"
1220	5/8"	7 1/2"
1222	11/16"	8 1/4"
1224	3/4"	9 1/4"
2404	Vinyl Kit, 12 1/4"x10"	
	Weight, 1.61 Lbs.	

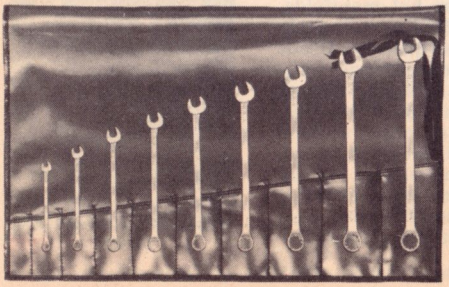
No. 1200F Set

A master set of fifteen combination box and open end wrenches that will handle close to 100% of all jobs in most types of industry. Includes all available opening sizes from 5/16" to 1 1/4".



Contents

NO.	SIZE OF OPENINGS	LENGTH
1210	5/16"	3 3/4"
1212	3/8"	4 1/2"
1214	7/16"	5 1/4"
1216	1/2"	6"
1218	9/16"	6 3/4"
1220	5/8"	7 1/2"
1222	11/16"	8 1/4"
1224	3/4"	9 1/4"
1226	13/16"	10 1/4"
1228	7/8"	11 1/4"
1230	15/16"	12 3/8"
1232	1"	13 3/8"
1234	1 1/16"	14 3/8"
1236	1 1/8"	15 3/4"
1240	1 1/4"	17"
2413	Vinyl Kit, 25"x18 1/2"	
	Weight, 8.7 Lbs.	



No. 1200L Set

A very useful set of the long-type, extra-leverage wrenches. Includes all nine available sizes, from 1/4" to 3/4".

Contents

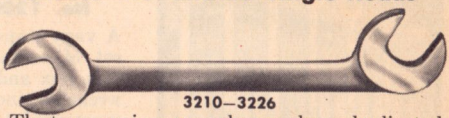
NO.	SIZE OF OPENINGS	LENGTH
1208L	1/4"	4 7/8"
1210L	5/16"	5 3/4"
1212L	3/8"	6 5/8"
1214L	7/16"	7 1/2"
1216L	1/2"	8 1/4"
1218L	9/16"	9 1/8"
1220L	5/8"	10"
1222L	11/16"	10 7/8"
1224L	3/4"	11 3/4"
2406	Vinyl Kit, 22 1/2"x15"	
	Weight, 2.4 Lbs.	

PROTO TOOLS LOS ANGELES

MIDGET OPEN END WRENCHES AND TAPPET WRENCHES

Midget Open End Obstruction Wrenches—15° and 60°-Angle Heads

NO.	NOMINAL OPENING SIZES		HEAD THICKNESS	LENGTH	WT., LBS.
	15° END	60° END			
3210	13/64"	15/64"	3/32"	3"	.02
3211	15/64"	13/64"	3/32"	3"	.02
3215	7/32"	1/4"	3/32"	3"	.02
3216	1/4"	7/32"	3/32"	3"	.02
3220	9/32"	5/16"	5/32"	3 1/2"	.03
3221	5/16"	9/32"	5/32"	3 1/2"	.03
3225	11/32"	3/8"	5/32"	3 3/4"	.04
3226	3/8"	11/32"	5/32"	3 3/4"	.04

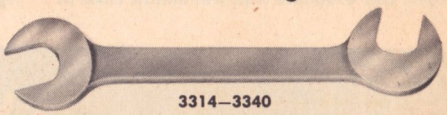


3210—3226

The two openings on each wrench are duplicated on another wrench but at different head angles. Each pair, therefore, provides two opening sizes in both 15° and 60° angles. They are used on carburetors, timers, generators, radios and other electrical equipment. Forged from alloy steel.

Midget Open End Electrical Wrenches—15° and 80°-Angle Heads

NO.	NOMINAL OPENING SIZE BOTH ENDS	HEAD THICKNESS	LENGTH	WT., LBS.
3314	7/32"	3/32"	3 1/4"	.02
3315	15/64"	3/32"	3 1/4"	.02
3316	1/4"	3/32"	3 1/4"	.02
3318	9/32"	1/8"	3 1/2"	.03
3320	5/16"	1/8"	3 1/2"	.03
3322	11/32"	1/8"	4"	.04
3324	3/8"	1/8"	4"	.04
3328	7/16"	5/32"	4 3/4"	.07
3332	1/2"	5/32"	4 3/4"	.07
3336	9/16"	3/16"	5 3/4"	.12
3340	5/8"	3/16"	5 3/4"	.12



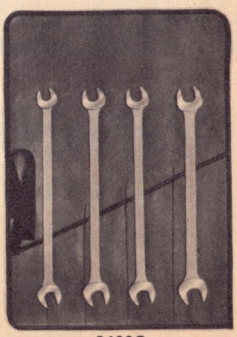
3314—3340

Both openings on each wrench are the same size. The 15° and 80°-angle heads are needed for delicate adjustments on timers, generators, radios, etc. Nos. 3336 and 3340 are for tractor and industrial use. All sizes have narrow shanks and very small fillet radii to increase their usefulness. They are forged from alloy steel.

Tappet Open End Wrenches—15°-Angle Heads

NO.	NOMINAL OPENING SIZES	HEAD THICKNESS		LGTH.	WT., LBS.
		SMALL	LARGE		
3425	7/16"x1/2"	.195"	.195"	10"	.15
3426	1/2"x9/16"	.160"	.183"	10"	.16
3430	9/16"x5/8"	.192"	.200"	10"	.24
3435	11/16"x3/4"	.210"	.210"	10"	.27
3440	13/16"x7/8"	.210"	.210"	10"	.35

Have best length for general use, 10", which provides good leverage, keeps hands away from hot manifolds, and still permits use in close quarters. Heads give good service without spreading. Wrench openings cover tappets, screws or lock nuts without excessive overhang, making them easier and faster to use. They are forged from fine alloy steel.



3400G

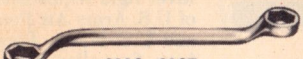
No. 3400G Tappet Wrench Set

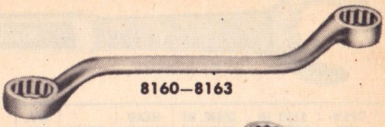
Contents

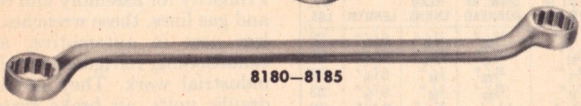
NO.	QUANTITY	OPENING SIZES
3425	1	7/16"x1/2"
3426	2	1/2"x9/16"
3430	1	9/16"x5/8"
2405	Vinyl Kit, 10"x15"	
	Weight, 1.20 Lbs.	

Note: For STANDARD Nut and Bolt Sizes, Corresponding to NOMINAL Wrench Openings, See Chart Opposite Page 64.

OFFSET BOX WRENCHES

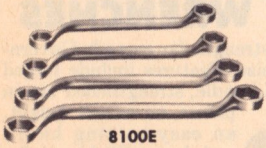






Designed to reach nuts and boltheads in counterbored places, casting depressions and other restricted spots where usual wrenches cannot be used. Heads are offset 45°, providing needed height for many jobs. Thin box walls allow maximum clearance. Forged from special alloy steel and properly heat treated for extra strength and toughness.

No. 8100E Midget Offset Box Wrench Set



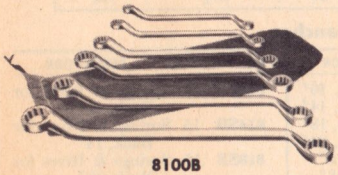
In cardboard box.

Contents

NO.	OPENINGS
8112	3/16" x 13/64"
8117	7/32" x 15/64"
8122	1/4" x 9/32"
8127	5/16" x 11/32"
Weight, .12 Lb.	

No. 8100B Long Offset Box Wrench Set

Covers all popular opening sizes from 3/8" to 1". A real time and work saver. Supplied in a free cloth bag.



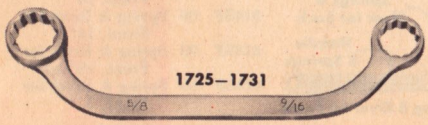
Contents

NO.	OPENINGS
8180	3/8" x 7/16"
8181	1/2" x 9/16"
8182	5/8" x 11/16"
8183	3/4" x 25/32"
8184	13/16" x 7/8"
8185	15/16" x 1"
Weight, 3.3 Lbs.	

NO.	NOMINAL OPENING SIZES	HEAD THICKNESS	LENGTH	WT., LBS.
MIDGET TYPE—6-POINT				
8112	3/16" x 13/64"	9/64"	2 7/8"	.01
8117	7/32" x 15/64"	5/32"	3 1/8"	.02
8122	1/4" x 9/32"	11/64"	3 7/16"	.03
8127	5/16" x 11/32"	3/16"	3 7/8"	.04
SHORT TYPE—12-POINT				
8160	3/8" x 7/16"	1/4"	5"	.08
8161	1/2" x 9/16"	5/16"	5 1/2"	.12
8162	5/8" x 11/16"	3/8"	6"	.19
8163	3/4" x 13/16"	7/16"	6 1/2"	.25
LONG TYPE—12-POINT				
8180	3/8" x 7/16"	1/4"	7 3/4"	.16
8181	1/2" x 9/16"	5/16"	9"	.25
8182	5/8" x 11/16"	3/8"	10 1/4"	.38
8183	3/4" x 25/32"	7/16"	11 1/2"	.46
8184	13/16" x 7/8"	1/2"	12 3/4"	.66
8185	15/16" x 1"	9/16"	14"	.93

OBSTRUCTION 12-PT. BOX WRENCHES

For turning nuts where obstructions prevent easy access with straight wrenches, and particularly useful on many starters. Clearance at middle is 1". Made of alloy steel.



NO.	NOMINAL OPENING SIZES	HEAD THICKNESS	LENGTH	WT., LBS.
1725	7/16" x 1/2"	5/16"	5 11/16"	.12
1730	9/16" x 5/8"	3/8"	6 21/32"	.20
1731	5/8" x 3/4"	13/32"	7 5/8"	.33

PROTO TOOLS
LOS ANGELES

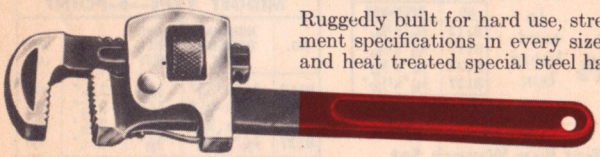
FLARE NUT WRENCHES

Meet rigid requirements of U.S. Army Air Forces and U.S. Navy. Forged from fine alloy steel.

NO.	OPENING	SLOT IN BOXHEAD	DIAM. OF BOXHEAD	HEAD THKNS.	LENGTH	WT., LBS.
3712	3/8"	7/32"	13/16"	11/32"	6 1/2"	.23
3714	7/16"	9/32"	13/16"	11/32"	6 1/2"	.22
3716	1/2"	3/8"	31/32"	7/16"	6 7/8"	.24
3718	9/16"	7/16"	31/32"	7/16"	6 7/8"	.23
3720	5/8"	15/32"	1 1/8"	17/32"	7 1/8"	.32
3724	3/4"	9/16"	1 9/32"	19/32"	7 13/16"	.38
3728	7/8"	11/16"	1 7/16"	21/32"	7 3/4"	.48
3730	15/16"	23/32"	1 7/16"	21/32"	7 3/4"	.46
3732	1"	3/4"	1 19/32"	3/4"	8 1/8"	.58
3734	1 1/16"	25/32"	1 19/32"	3/4"	8 1/8"	.56
3736	1 1/8"	27/32"	1 3/4"	7/8"	8 7/16"	.66

Primarily for assembly and repair of fluid and gas lines, these wrenches have countless uses in automotive, aviation, air conditioning, refrigeration, plumbing and industrial work. They are used on hydraulic units, air brake systems, service station equipment, compressors, instruments, etc. A modified 12-point design saves chewing of soft metal nuts and fittings. Nine gripping points and deep walls prevent slippage.

STILLSON-PATTERN PIPE WRENCHES



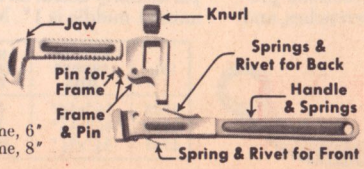
Ruggedly built for hard use, strength far exceeds Government specifications in every size. Features include forged and heat treated special steel handle, strengthened strain points, no excess weight, an easy-turning knurl, and deep-milled teeth for positive grip.

NO.	LENGTH	MAX. OPENING	WT., LBS.
806	6"	1/2"	.31
808	8"	3/4"	.64
810	10"	1"	1.36

NO.	LENGTH	MAX. OPENING	WT., LBS.
814	14"	1 1/2"	2.8
818	18"	2"	4.0
824	24"	2 1/2"	7.2

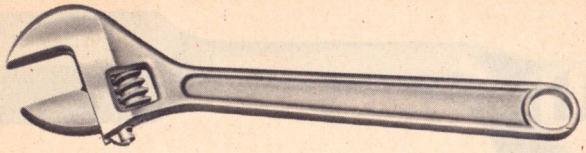
Spare Parts for Pipe Wrenches

NO.	NET PRICE	DESCRIPTION
806H	.55	Handle & Spring, 6"
808H	.63	Handle & Spring, 8"
810H	.87	Handle & Springs, 10"
814H	1.20	Handle & Springs, 14"
818H	1.77	Handle & Springs, 18"
824H	2.81	Handle & Springs, 24"
806J	.35	Jaw, 6"
808J	.38	Jaw, 8"
810J	.60	Jaw, 10"
814J	.82	Jaw, 14"
818J	1.17	Jaw, 18"
824J	1.91	Jaw, 24"
806K	.08	Knurl, 6"
808K	.08	Knurl, 8"
810K	.11	Knurl, 10"
814K	.16	Knurl, 14"
818K	.19	Knurl, 18"
824K	.30	Knurl, 24"
806P	.02	Pin for Frame, 6"
808P	.02	Pin for Frame, 8"
810P	.02	Pin for Frame, 10"
814P	.04	Pin for Frame, 14"
818P	.04	Pin for Frame, 18"
824P	.04	Pin for Frame, 24"
806PF	.25	Frame & Pin, 6"
808PF	.30	Frame & Pin, 8"
810PF	.38	Frame & Pin, 10"
814PF	.44	Frame & Pin, 14"
818PF	.52	Frame & Pin, 18"
824PF	.95	Frame & Pin, 24"



NO.	NET PRICE	DESCRIPTION
810SB	.13	Springs & Rivet for Back, 10"
814SB	.15	Springs & Rivet for Back, 14"
818SB	.15	Springs & Rivet for Back, 18"
824SB	.16	Springs & Rivet for Back, 24"
806SF	.07	Spring & Rivet for Front, 6"
808SF	.07	Spring & Rivet for Front, 8"
810SF	.07	Spring & Rivet for Front, 10"
814SF	.09	Spring & Rivet for Front, 14"
818SF	.09	Spring & Rivet for Front, 18"
824SF	.09	Spring & Rivet for Front, 24"

ADJUSTABLE WRENCHES — 22½° ANGLE



NO.	LENGTH	MAX. OPNG.	FINISH	WT., LBS.
704	4″	½″	Full	.10
704S	4″	½″	Semi	.10
706	6″	¾″	Full	.23
706S	6″	¾″	Semi	.23
708	8″	15/16″	Full	.47
708S	8″	15/16″	Semi	.47
710	10″	1⅛″	Full	.80
710S	10″	1⅛″	Semi	.80
712	12″	1 5/16″	Full	1.48
712S	12″	1 5/16″	Semi	1.48
716S	16″	1⅞″	Semi	3.4
720S	20″	2½″	Semi	5.9

Forged from fine alloy steel, these wrenches are strong—though thin and light to permit faster work.

The five full-finish wrenches are highly polished and then chrome plated to prevent rust and enhance appearance. The seven semi-finish wrenches have polished heads.

Absence of a corner lip on the movable jaw (in most sizes) allows a square nut to fit flat against the inside jaw surface, resulting in greater strength, better adaptability to different size nuts, and elimination of "knuckle busting" due to slippage.

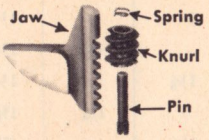
Two cost savers are the 16″ size, which does the work of usual 15″ and 18″ wrenches, and the 20″ size, which replaces usual 18″ and 24″ wrenches.

Adjustable Wrench Spare Parts

NO.	NET PRICE	DESCRIPTION
704J	.27	Jaw, 4″, Polished
704JP	.33	Jaw, 4″, Plated
706J	.27	Jaw, 6″, Polished
706JP	.33	Jaw, 6″, Plated
708J	.33	Jaw, 8″, Polished
708JP	.42	Jaw, 8″, Plated
710J	.44	Jaw, 10″, Polished
710JP	.55	Jaw, 10″, Plated
712J	.67	Jaw, 12″, Polished
712JP	.80	Jaw, 12″, Plated
716J	.83	Jaw, 16″, Polished

NOTE: Polished jaws and knurls match semi-finish and full-polished wrenches. Pins and springs match all semi-finish, full-polished and plated wrenches.

NO.	NET PRICE	DESCRIPTION
720J	1.09	Jaw, 20″, Polished
704K	.11	Knurl, 4″, Polished
704KP	.13	Knurl, 4″, Plated
706K	.11	Knurl, 6″, Polished
706KP	.13	Knurl, 6″, Plated
708K	.13	Knurl, 8″, Polished
708KP	.14	Knurl, 8″, Plated
710K	.14	Knurl, 10″, Polished
710KP	.16	Knurl, 10″, Plated



NO.	NET PRICE	DESCRIPTION
712K	.25	Knurl, 12″, Polished
712KP	.27	Knurl, 12″, Plated
716K	.40	Knurl, 16″, Polished
720K	.58	Knurl, 20″, Polished
704N	.04	Pin, 4″, Polished
706N	.04	Pin, 6″, Polished
708N	.04	Pin, 8″, Polished
710N	.04	Pin, 10″, Polished
712N	.11	Pin, 12″, Polished
716N	.13	Pin, 16″, Polished
720N	.16	Pin, 20″, Polished
704R	.04	Spring, 4″
706R	.04	Spring, 6″
708R	.04	Spring, 8″
710R	.04	Spring, 10″
712R	.04	Spring, 12″
716R	.04	Spring, 16″
720R	.04	Spring, 20″

No. 700A Adjustable Wrench Spare Parts Kit

NO.	QUAN.	NO.	QUAN.
704J	2	712J	1
704JP	2	712JP	1
706J	3	716J	1
706JP	3	720J	1
708J	3	704K	1
708JP	3	704KP	1
710J	1	706K	1
710JP	1	706KP	1

Contents

NO.	QUAN.
708K	2
708KP	2
710K	1
710KP	1
712K	1
712KP	1
716K	1
720K	1
704N	3
706N	4
708N	5
710N	2
712N	1
716N	1
720N	1
704R	3
706R	4
708R	4
710R	2
712R	2
716R	2
720R	2

Total of 72 Parts. Weight, 4.4 Lbs. Net Price—$14.17.

PROTO TOOLS
LOS ANGELES

HEAVY-DUTY INDUSTRIAL WRENCHES

Striking Wrenches—12-Point Box Type

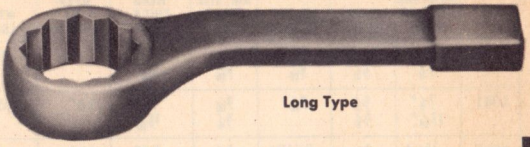
An Original Development by PROTO

Striking wrenches have a square striking shank for use in restricted quarters with a sledge or hammer. They are offset to allow maximum clearance. These wrenches are necessary for tightening and loosening large bolts and nuts. Like all of the heavy-duty PROTO industrial wrenches, they are noted for their great strength, being forged from PROTO-specified alloy steels. Although strong enough for extra heavy duty, they are streamlined to reduce unnecessary weight.

NO.	NOMINAL OPENING SIZE	AMER. STD. HEAVY	AMER. STD. REGULAR	AMER. STD. LIGHT (SAE)	OFFSET OF HEAD	HEAD THICKNESS	OVERALL LENGTH	WT., LBS.
2617SW	1 1/16"	5/8	.....	3/4	15/16"	5/8"	8 1/2"	1.7
2618SW	1 1/8"	.....	3/4	.....	15/16"	5/8"	8 1/2"	1.6
2620SW	1 1/4"	3/4	.....	7/8	13/16"	13/16"	10 3/4"	3.2
2621SW	1 5/16"	.....	7/8	.....	13/16"	13/16"	10 3/4"	3.0
2623SW	1 7/16"	7/8	.....	1	1 1/2"	1"	12"	4.7
2624SW	1 1/2"	.....	1	.....	1 1/2"	1"	12"	4.4
2626SW	1 5/8"	1	.....	1 1/8	1 1/2"	1 1/8"	12 1/4"	4.6
2627SW	1 11/16"	.....	1 1/8	.....	1 1/2"	1 1/8"	12 1/4"	4.5
2629SW	1 13/16"	1 1/8	.....	1 1/4	1 9/16"	1 3/16"	13 7/16"	6.6
2630SW	1 7/8"	.....	1 1/4	.....	1 21/32"	1 1/4"	13 7/16"	6.8
2632SW	2"	1 1/4	.....	1 3/8	1 21/32"	1 1/4"	13 7/16"	6.6
2635SW	2 3/16"	1 3/8	.....	1 1/2	2"	1 1/2"	13 7/8"	8.2
2638SW	2 3/8"	1 1/2	.....	.....	2"	1 1/2"	13 7/8"	7.8
2641SW	2 9/16"	1 5/8	.....	.....	2 1/4"	1 1/2"	13 7/8"	8.7
2644SW	2 3/4"	1 3/4	.....	.....	2 1/4"	1 1/2"	13 7/8"	8.2
2647SW	2 15/16"	1 7/8	.....	.....	2 5/8"	1 7/8"	16"	13
2650SW	3 1/8"	2	.....	.....	2 5/8"	1 7/8"	16"	12

HEAVY-DUTY INDUSTRIAL WRENCHES

Short Type


Long Type

Slugging Wrenches—12-Point Box Type

Industrial slugging box wrenches are designed for all types of heavy industrial work where the working space is extremely limited or highly congested. The 12-point opening fits snugly upon the bolt or nut and will remain in position while being struck with heavy hammer or sledge. These wrenches are a boon to shipbuilders (for installing or repairing machinery in ships), diesel power plants, railroad repair shops, oil refineries and other plants with heavy machinery. They are forged from PROTO-specified alloy steel.

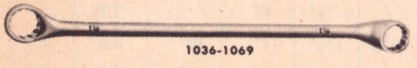
NO. SHORT TYPE	NO. LONG TYPE	NOMINAL OPENING SIZE	AM. STD. HEAVY	AM. STD. REGULAR	AM. STD. LIGHT (SAE)	HEAD THICK-NESS	LENGTH SHORT TYPE	LENGTH LONG TYPE	WT., LBS. SHORT TYPE	WT., LBS. LONG TYPE
USN221	.....	15/16"	.....	7/8	.....	7/8"	6"	.....	1.84	.....
USN223	.....	17/16"	7/8	.....	1	7/8"	6"	.....	1.80	.....
USN224	.....	1 1/2"	.....	1	.....	7/8"	6"	.....	1.76	.....
USN226	USN326	1 5/8"	1	.....	1 1/8	1 1/8"	7"	10"	3.3	3.2
USN227	USN327	1 11/16"	.....	1 1/8	.....	1 1/8"	7"	10"	3.3	3.1
USN229	USN329	1 13/16"	1 1/8	.....	1 1/4	1 1/8"	7"	10"	3.2	2.8
USN230	USN330	1 7/8"	.....	1 1/4	.....	1 1/4"	7"	10 3/4"	3.0	3.9
USN232	USN332	2"	1 1/4	.....	1 3/8	1 1/4"	7 1/2"	10 3/4"	5.0	3.7
USN235	USN335	2 3/16"	1 3/8	.....	1 1/2	1 3/8"	7 1/2"	11"	4.7	5.0
USN236	USN336	2 1/4"	.....	1 1/2	.....	1 3/8"	7 1/2"	11"	4.7	5.0
USN238	USN338	2 3/8"	1 1/2	.....	.....	1 5/8"	8 7/16"	14 1/2"	8.0	4.7
USN241	USN341	2 9/16"	1 5/8	.....	.....	1 5/8"	8 7/16"	14 1/2"	7.6	8.3
USN242	USN342	2 5/8"	.....	1 3/4	.....	1 5/8"	8 7/16"	14 1/2"	7.7	8.0
USN244	USN344	2 3/4"	1 3/4	.....	.....	1 5/8"	9 1/2"	14 1/2"	12	7.7
USN247	.....	2 15/16"	1 7/8	.....	.....	1 7/8"	9 1/2"	.....	12	.....
USN248	USN348	3"	.....	2	.....	1 7/8"	9 1/2"	15 3/4"	11	10
USN250	USN350	3 1/8"	2	.....	.....	1 7/8"	9 1/2"	15 3/4"	11	11
USN254	USN354	3 3/8"	.....	2 1/4	.....	2"	10"	17 3/8"	14	14
USN256	USN356	3 1/2"	2 1/4	.....	.....	2"	10"	17 3/8"	14	15

Additional sizes, not listed above as standard, can be made on special order.

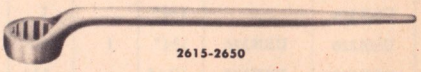
PROTO TOOLS
REG. U.S. PAT. OFF. LOS ANGELES MADE IN U.S.A.

HEAVY-DUTY INDUSTRIAL WRENCHES

NO.	NOMINAL OPENING SIZES	AM. STD. HEAVY	AM. STD. REGULAR	AM. STD. LIGHT (SAE)	HEAD THICK-NESS	OVER-ALL LENGTH	WT., LBS.
1036	11/16″ 7/8″	3/8(N) 1/2	..... 9/16	..... 9/16	1/2″ 9/16″	11 1/2″	.69
1041	7/8″ 1 1/16″	1/2 5/8	9/16	9/16 3/4	5/8″ 11/16″	13″	1.30
1045	15/16″ 1″	9/16	5/8(B) 5/8(N)	5/8	5/8″ 11/16″	15″	1.90
1051	1 1/16″ 1 1/4″	5/8 3/4	....	3/4 7/8	11/16″ 13/16″	16 1/2″	2.1
1053	1 1/8″ 1 5/16″	....	3/4 7/8	....	3/4″ 7/8″	18 1/8″	2.4
1061	1 1/4″ 1 7/16″	3/4 7/8	....	7/8 1	7/8″ 15/16″	20″	3.9
1063	1 7/16″ 1 5/8″	7/8 1	....	1 1 1/8	1″ 1 1/8″	22 1/2″	4.6
1066	1 13/16″ 2″	1 1/8 1 1/4	....	1 1/4 1 3/8	1 3/16″ 1 1/4″	25 3/4″	7.4
1069	2 3/16″ 2 3/8″	1 3/8 1 1/2	....	1 1/2	1 1/2″ 1 3/8″	27″	9.0



1036-1069



2615-2650

Heavy-Duty Double-End 12-Point Box Wrenches

Safety engineers and workers whole-heartedly endorse these wrenches. They are made stronger in the neck, or offset, but without increasing the thickness between the broached opening and the under side of the offset. The crescent-shaped neck is not only stronger but will work in closer places. High-pressure flanges and castings with ribs or bosses adjacent to bolt holes are examples of work where minimum rear wall thickness is valuable. They are forged from alloy steel.

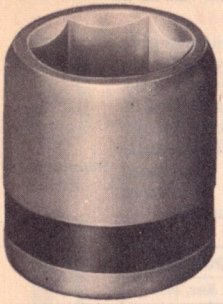
NO.	NOMINAL OPENING SIZES	AM. STD. HEAVY	AM. STD. REGULAR	AM. STD. LIGHT (SAE)	OFFSET OF HEAD	HEAD THICK-NESS	OVER-ALL LENGTH	WT., LBS.
2615	15/16″	9/16	5/8(B)	5/8	15/16	5/8″	14 1/2″	1.01
2617	1 1/16″	5/8	.....	3/4	15/16	5/8″	15 5/8″	1.30
2618	1 1/8″	.....	3/4	.....	15/16	11/16″	16 3/4″	1.80
2620	1 1/4″	3/4	.....	7/8	1 3/16	1 3/16″	17 7/8″	2.3
2623	1 7/16″	7/8	.....	1	1 3/8	15/16″	19″	3.1
2624	1 1/2″	.....	1	.....	1 1/2	1″	20 1/8″	3.3
2626	1 5/8″	1	.....	1 1/8	1 1/2	1 1/8″	21 1/4″	3.6
2627	1 11/16″	.....	1 1/8	.....	1 1/2	1 1/8″	22 1/4″	3.8
2629	1 13/16″	1 1/8	.....	1 1/4	1 9/16	1 3/16″	23 1/4″	5.3
2630	1 7/8″	.....	1 1/4	.....	1 21/32	1 1/4″	24 1/4″	5.6
2632	2″	1 1/4	.....	1 3/8	1 21/32	1 1/4″	25 1/4″	5.8
2635	2 3/16″	1 3/8	.....	1 1/2	1 7/8	1 3/8″	26″	7.0
2638	2 3/8″	1 1/2	.....	.....	2	1 1/2″	27″	7.0
2641	2 9/16″	1 5/8	.....	.....	2 1/4	1 1/2″	28″	8.7
2644	2 3/4″	1 3/4	.....	.....	2 1/4	1 1/2″	29″	8.6
2647	2 15/16″	1 7/8	.....	.....	2 5/8	1 7/8″	29 3/4″	12
2650	3 1/8″	2	.....	.....	2 5/8	1 7/8″	30″	11

(B) Bolt Heads Only. (N) Nuts Only.

Heavy-Duty Spud-End 12-Point Box Wrenches

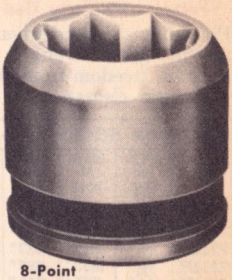
You will note an innovation in this wrench, as a real safety factor has been introduced. It is a combination box wrench with tapered spud handle, which makes quick work of loosening frozen or corroded bolts or nuts. The spud end is very handy for aligning holes in flanges. Note the clearance provided by the offset head which overcomes the usual clearance problems. These wrenches are ideal for construction, refineries, etc. Forged from alloy steel, they are extra strong.

IMPACT SOCKET WRENCHES



These rugged sockets are for use on Chicago Pneumatic, Ingersoll-Rand, Thor and other makes of standard impact wrenches. They are made of finest alloy steels and designed to give long, satisfactory service in the assembly and maintenance of heavy vehicles, machinery and equipment.

6-Point



8-Point

3/4" SQUARE DRIVE SOCKETS—6-POINT (SINGLE HEXAGON)

NO.	NOMINAL OPENING SIZE	AM. STD. HEAVY	AM. STD. REGULAR BLT. HDS.	AM. STD. REGULAR NUTS	AM. STD. LIGHT (SAE)	DEPTH OF PUNCHED OPENING	DIAMETER OF NOSE	DIAMETER OF DRIVE END	OVERALL LENGTH	WT., LBS.	GMC & CHRYSLER NUMBER
07512	3/4"	....	1/2	7/16	1/2	5/8"	1.156"	1.625"	1 7/8"	.68	948671
07513	13/16"	....	....	1/2	....	5/8"	1.156"	1.625"	1 7/8"	.62	948673
07514	7/8"	1/2	9/16	9/16	9/16	5/8"	1.250"	1.625"	2"	.70	948674
07515	15/16"	9/16	5/8	....	5/8	5/8"	1.313"	1.750"	2"	.86	948675
07516	1"	....	....	5/8	....	5/8"	1.438"	1.875"	2 1/16"	1.00	948676
07517	1 1/16"	5/8	....	....	3/4	3/4"	1.500"	1.875"	2 1/16"	.96	948677
07518	1 1/8"	....	3/4	3/4	....	13/16"	1.594"	2.000"	2 3/16"	1.28	948678
07520	1 1/4"	3/4	....	....	7/8	31/32"	1.719"	2.125"	2 3/16"	1.36	948680
07521	1 5/16"	....	7/8	7/8	....	31/32"	1.813"	2.125"	2 3/16"	1.32	948681
07523	1 7/16"	7/8	....	....	1	1 1/32"	1.938"	2.250"	2 5/16"	1.56	948683

1" SQUARE DRIVE SOCKETS—6-POINT (SINGLE HEXAGON)

10014	7/8"	1/2	9/16	9/16	9/16	5/8"	1.438"	2.000"	2 1/16"	1.04	948605
10015	15/16"	9/16	5/8	....	5/8	5/8"	1.500"	2.000"	2 1/16"	1.02	948606
10016	1"	....	....	5/8	....	5/8"	1.531"	2.000"	2 1/16"	1.06	948607
10017	1 1/16"	5/8	....	....	3/4	3/4"	1.562"	2.125"	2 3/16"	1.28	948608
10018	1 1/8"	....	3/4	3/4	....	3/4"	1.594"	2.125"	2 3/16"	1.30	948609
10019	1 3/16"	....	....	....	....	3/4"	1.656"	2.125"	2 3/16"	1.28	948610
10020	1 1/4"	3/4	....	....	7/8	3/4"	1.719"	2.125"	2 3/16"	1.23	948611
10021	1 5/16"	....	7/8	7/8	....	3/4"	1.813"	2.125"	2 3/16"	1.30	948612
10023	1 7/16"	7/8	....	....	1	7/8"	1.938"	2.250"	2 5/16"	1.46	948614
10024	1 1/2"	....	1	1	....	1 3/32"	2.094"	2.313"	2 5/16"	1.46	948615
†10024L	1 1/2"	....	1	1	....	7/8"	2.125"	2.313"	3 1/2"	2.4	.....
10026	1 5/8"	1	....	....	1 1/8	1 3/32"	2.219"	2.438"	2 7/16"	1.78	948617
10027	1 11/16"	....	1 1/8	1 1/8	....	1 3/32"	2.313"	2.563"	2 7/16"	1.96	948618
10029	1 13/16"	1 1/8	....	....	1 1/4	1 1/8"	2.438"	2.750"	2 9/16"	2.5	948620
10030	1 7/8"	....	1 1/4	1 1/4	....	1 1/8"	2.531"	2.750"	2 9/16"	2.3	948621
10032	2"	1 1/4	....	....	1 3/8	1 1/8"	2.656"	3.000"	2 11/16"	3.2	948623
10033	2 1/16"	....	1 3/8	1 3/8	....	1 1/8"	2.750"	3.000"	2 11/16"	3.2	948624
10035	2 3/16"	1 3/8	....	....	1 1/2	1 3/16"	2.875"	3.250"	2 13/16"	4.0	948626

1" SQUARE DRIVE SOCKETS—8-POINT (DOUBLE SQUARE)

‡10013S	13/16"	....	....	1/2	....	5/8"	1.531"	2.000"	2 1/16"	1.08	948641
10018S	1 1/8"	....	3/4	3/4	....	3/4"	1.906"	2.250"	2 1/4"	1.56	948647
10020S	1 1/4"	3/4	....	....	7/8	3/4"	2.031"	2.375"	2 1/4"	1.80	948649
10021S	1 5/16"	....	7/8	7/8	....	3/4"	2.156"	2.563"	2 5/16"	2.2	948650
10023S	1 7/16"	7/8	....	....	1	7/8"	2.375"	2.625"	2 7/16"	2.3	948652

†Extra Deep Socket. ‡4-Point (Single Square) Socket.

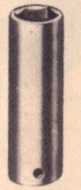
PROTO TOOLS — LOS ANGELES

3/8" SQ. DR. POWER OR HAND SOCKETS

For Heavy-Duty Use on Manual Attachments and All Types of Power Drive

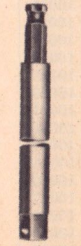
Fine alloy steel and advanced design provide great strength, toughness, snug fit, freedom from slipping, and maximum clearance for speed and ease in handling. These features give long life and a high safety factor on production lines and with heavy-duty manual use. PROTO power sockets fit Black & Decker, Chicago Pneumatic, Ingersoll-Rand, Mall, Thor and other makes of power tools and wrenches.

Regular 6-Pt. Socket



Deep Socket

Universal Socket



Extension

Universal Joint

REGULAR SOCKETS—6-PT. (SINGLE HEX.)

NO.	OPENING SIZE	DIAM. OF NOSE	DIAM. DRIVE END	OVERALL LGTH.	GMC & CHRYSLER NO.	FORD NO.	WT., LBS.
7210H	5/16"	.487"	.687"	7/8"	.....	1R1	.07
7211H	11/32"	.503"	.687"	7/8"	782961	1R2	.07
7212H	3/8"	.547"	.687"	7/8"	782962	1R4	.05
7214H	7/16"	.625"	.687"	7/8"	782963	1R8	.05
7216H	1/2"	.705"	.750"	7/8"	782964	1R12	.06
7218H	9/16"	.781"	.781"	7/8"	782965	1R17	.07
7220H	5/8"	.875"	.875"	7/8"	782966	1R23	.10
7222H	11/16"	.937"	.937"	1"	782967	1R28	.16
7224H	3/4"	1.032"	1.032"	1"	782968	1R32	.21

EXTRA DEEP SOCKETS—6-PT. (SINGLE HEX.)

7011H	11/32"	.507"	.687"	1 1/2"	782971	1R3	.10
7012H	3/8"	.542"	.687"	1 1/2"	782972	1R5	.11
7014H	7/16"	.628"	.687"	1 1/2"	782973	1R9	.09
7016H	1/2"	.708"	.750"	1 1/2"	782974	1R13	.09
7018H	9/16"	.786"	.812"	1 1/2"	782975	1R18	.12
7020H	5/8"	.875"	.875"	1 1/2"	782976	1R24	.14
7022H	11/16"	.937"	.937"	1 1/2"	782977	1R29	.20
7024H	3/4"	1.032"	1.032"	1 1/2"	782978	1R33	.24

UNIVERSAL SOCKETS—6-PT. (SINGLE HEX.)

7273H	3/8"	.547"	.875"	1 3/4"	†782909	3R1	.18
7274H	7/16"	.650"	.875"	1 13/16"	†782910	3R2	.17
7275H	1/2"	.728"	.875"	1 13/16"	†782911	3R4	.17
7276H	9/16"	.822"	.875"	1 7/8"	†782912	3R6	.18
7277H	5/8"	.885"	.875"	1 15/16"	†782913	3R8	.19

SOCKET EXTENSIONS

3/8" Sq. by 7/16" Hex. Dr.—9/16" Shank

NO.	LGTH.	GMC NO.	FORD NO.	WT., LBS.
7111	2 3/4"	785481	4R33	.14
7113	5"	785482	4R38	.28
7115	8"	785483	4R43	.50
7117	12"	785484	4R48	.77
7119	18"	785485	4R52	1.20

†GMC Specifications Only.

Note: For STANDARD Nut, Bolt and Cap Screw Sizes, Corresponding to NOMINAL Opening Sizes of Power Sockets, See Chart Opposite Page 64.

No. 7270 Universal Joint
2" Long, 3/8" Square Male and Female Connections. Wt., .16 Lb.

POWER OR HAND SOCKET SETS

1/2" Drive Sockets

NO.	QUAN.	OP.
7414H	3	7/16"
7416H	6	1/2"
7418H	6	9/16"
7420H	6	5/8"
7422H	4	11/16"
7424H	6	3/4"
7426H	3	13/16"
7428H	3	7/8"

No. 7400A Package-Set

Developed as a merchandising package for PROTO distributors, but ideal also for industrial plants that repair their vehicles and large garages and maintenance shops. Wt.,10.0 Lbs.

Additional Items (1 Each)

NO.	DESCRIPTION
4515	Stud Remover, 1/2" Drive
5239	Chevrolet Oil Pan Socket
5245	Chevrolet Oil Pan Socket
5254	Adapter, 1/2" F., 3/8" M.
6522	Cadillac Con. Rod Socket
6523	Ford V8 Con. Rod Socket
7470	Heavy-Duty Universal Joint, 1/2" Drive

Basic 1/2" Drive Sets

Contain six high-utility sockets for impact tools.

7400B Sockets in 7400B

NO.	OP.
7418H	9/16"
7420H	5/8"
7422H	11/16"
7424H	3/4"
7426H	13/16"
7428H	7/8"

Wt., 1.45 Lbs.

7400C Sockets in 7400C

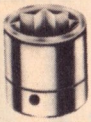
NO.	OP.
7414H	7/16"
7416H	1/2"
7418H	9/16"
7420H	5/8"
7422H	11/16"
7424H	3/4"

Wt., 1.10 Lbs.

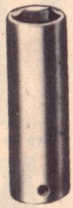
1/2" SQ. DR. POWER OR HAND SOCKETS

For Heavy-Duty Use on Manual Attachments and All Types of Power Drive

Regular 6-Pt. Socket



Regular 8-Pt. Socket



Deep Socket

Universal Socket

Extension

REGULAR SOCKETS — 6-POINT (SINGLE HEXAGON)

NO.	NOMINAL OPENING SIZE	DEPTH OF PUNCHED OPENING	DIAM. OF NOSE	DIAM. OF DRIVE END	OVERALL LENGTH	GMC & CHRYSLER NUMBER	FORD NUMBER	WT., LBS.
7412H	3/8"	9/32"	.600"	.875"	1 1/2"	785561	1R6	.13
7414H	7/16"	21/64"	.685"	.875"	1 1/2"	785562	1R10	.14
7416H	1/2"	3/8"	.768"	.937"	1 1/2"	785563	1R14	.17
7418H	9/16"	27/64"	.849"	.937"	1 1/2"	785564	1R19	.17
7420H	5/8"	15/32"	.936"	1.000"	1 1/2"	785565	1R25	.17
7422H	11/16"	33/64"	1.017"	1.062"	1 1/2"	785566	1R30	.22
7424H	3/4"	9/16"	1.125"	1.125"	1 1/2"	785567	1R34	.26
7426H	13/16"	39/64"	1.187"	1.187"	1 1/2"	785568	1R38	.38
7428H	7/8"	21/32"	1.281"	1.205"	1 1/2"	785569	1R40	.31
7430H	15/16"	45/64"	1.375"	1.253"	1 3/4"	785570	1R44	.45
7432H	1"	3/4"	1.437"	1.300"	1 3/4"	785571	1R49	.48
7434H	1 1/16"	51/64"	1.500"	1.346"	2"	785625	1R53	.55
7436H	1 1/8"	27/32"	1.562"	1.393"	2"	785626	1R56	.66
7440H	1 1/4"	15/16"	1.750"	1.534"	2"	.....	.....	.79

REGULAR SOCKETS — 8-POINT (DOUBLE SQUARE)

7412S	3/8"	9/32"	.712"	.875"	1 1/2"	782941	2R4	.16
7414S	7/16"	21/64"	.814"	.937"	1 1/2"	782942	2R6	.17
7416S	1/2"	3/8"	.937"	.937"	1 1/2"	782943	2R8	.21
7418S	9/16"	27/64"	1.000"	1.000"	1 1/2"	782944	2R9	.26
7420S	5/8"	15/32"	1.125"	1.125"	1 1/2"	782945	2R10	.29
7422S	11/16"	33/64"	1.187"	1.187"	1 1/2"	782946	2R11	.37
7424S	3/4"	9/16"	1.313"	1.130"	1 1/2"	782947	2R12	.44
7426S	13/16"	39/64"	1.375"	1.190"	1 1/2"	782948	2R13	.48
7428S	7/8"	21/32"	1.500"	1.250"	1 1/2"	782949	2R14	.38
7430S	15/16"	45/64"	1.625"	1.315"	1 3/4"	782950	2R16	.58
7432S	1"	3/4"	1.687"	1.380"	1 3/4"	782951	2R18	.60

EXTRA DEEP SOCKETS — 6-POINT (SINGLE HEXAGON)

7312H	3/8"	9/32"	.600"	.875"	3 1/4"	778341	1R7	.33
7314H	7/16"	21/64"	.685"	.875"	3 1/4"	778342	1R11	.33
7316H	1/2"	3/8"	.768"	.937"	3 1/4"	778343	1R15	.31
7318H	9/16"	27/64"	.849"	.937"	3 1/4"	778344	1R20	.37
7320H	5/8"	15/32"	.939"	1.000"	3 1/4"	778345	1R26	.36
7322H	11/16"	33/64"	1.032"	1.032"	3 1/4"	778346	1R31	.41
7324H	3/4"	9/16"	1.125"	1.125"	3 1/4"	778347	1R36	.59
7326H	13/16"	39/64"	1.187"	1.187"	3 1/4"	778348	1R39	.56
7328H	7/8"	21/32"	1.281"	1.281"	3 1/2"	778349	1R42	.62
7330H	15/16"	45/64"	1.375"	1.375"	3 1/2"	778350	1R46	.86
7332H	1"	3/4"	1.437"	1.437"	3 1/2"	778351	1R51	.90
7336H	1 1/8"	27/32"	1.562"	1.562"	3 1/2"	.....	1R57	1.02

BALL-TYPE UNIVERSAL SOCKETS — 6-POINT (SINGLE HEXAGON) ●

7475	1/2"	3/8"	.768"	.937"	2 17/32"	†948718	‡3R5	.35
7476	9/16"	27/64"	.849"	.937"	2 9/16"	†948720	‡3R7	.36
7477	5/8"	15/32"	.936"	.937"	2 19/32"	†948726	‡3R9	.37
7478	11/16"	33/64"	1.017"	.937"	2 5/8"	†948728	‡3R10	.37
7479	3/4"	9/16"	1.035"	.937"	2 21/32"	.....	‡3R11	.36

7470P Universal Joint, 2 13/16" Long, 1/2" Square Male and Female Connections. Wt., .38 Lb. Block-Type 6-Point Universal Sockets Available Include Nos. 7474H (7/16"), 7477H (5/8"), 7478H (11/16") and 7479H (3/4"). †GMC Only. ‡Block-Type. ● Spare Parts Available.

POWER SOCKET EXTENSIONS

1/2" Square by 7/16" Hexagon Drive

NO.	SHANK DIAM.	LENGTH	GMC NO.	FORD NO.	WT., LBS.
7121	11/16"	2 3/4"	785486	4R34	.17
7123	11/16"	5"	785487	4R39	.38
7125	11/16"	8"	785488	4R44	.66
7127	11/16"	12"	785489	4R49	1.04
7128	11/16"	18"	785490	4R53	1.60

1/2" Square by 5/8" Hexagon Drive

NO.	SHANK DIAM.	LENGTH	GMC NO.	FORD NO.	WT., LBS.
7131	3/4"	2 3/4"	785491	4R35	.25
7133	3/4"	5"	785492	4R40	.52
7135	3/4"	8"	785493	4R45	.89
7137	3/4"	12"	785494	4R50	1.38
7138	3/4"	18"	785495	4R54	2.14

PROTO TOOLS
REG. U.S. PAT. OFF. LOS ANGELES MADE IN U.S.A.

5/8" SQ. DR. POWER SOCKETS

REGULAR SOCKETS—6-PT. (SINGLE HEX.)

NO.	OPENING SIZE	DIAM. OF NOSE	DIAM. DRIVE END	OVERALL LGTH.	GMC & CHRYSLER NO.	FORD NO.	WT., LBS.
7624H	3/4"	1.112"	1.250"	1 1/2"	.....	1R35	.28
7626H	13/16"	1.190"	1.281"	1 1/2"	.....	...	.32
7628H	7/8"	1.269"	1.312"	1 1/2"	.....	1R41	.30
7629H	29/32"	1.317"	1.375"	1 3/4"	.....	1R43	.41
7630H	15/16"	1.349"	1.437"	2"	785627	1R45	.50
7632H	1"	1.442"	1.500"	2"	785628	1R50	.55
7634H	1 1/16"	1.500"	1.345"	2"	785572	1R54	.64
7636H	1 1/8"	1.562"	1.395"	2"	785573	1R58	.73
7638H	1 3/16"	1.687"	1.485"	2"	785574	1R59	.79
7640H	1 1/4"	1.750"	1.535"	2"	785575	1R61	.89
7642H	1 5/16"	1.875"	1.628"	2"	785576	1R63	.93
7644H	1 3/8"	1.937"	1.675"	2 1/4"	785577	1R65	1.20
7646H	1 7/16"	2.000"	1.721"	2 1/4"	785578	1R67	1.20
7648H	1 1/2"	2.062"	1.768"	2 3/8"	785579	1R69	1.30
REGULAR SOCKET—4-PT. (SINGLE SQ.)							
7626S	13/16"	1.440"	1.500"	2"	.....	.....	.98
DEEP SOCKETS—6-PT. (SINGLE HEX.)							
7534H	1 1/16"	1.500"	1.500"	3 1/2"	778352	1R55	1.06
7536H	1 1/8"	1.562"	1.562"	3 1/2"	778353	.....	1.26
7538H	1 3/16"	1.687"	1.687"	3 1/2"	778354	1R60	1.36
7540H	1 1/4"	1.750"	1.750"	3 1/2"	778355	1R62	1.50
7542H	1 5/16"	1.875"	1.875"	3 1/2"	778356	1R64	1.66
7544H	1 3/8"	1.937"	1.937"	3 1/2"	778357	1R66	1.77
7546H	1 7/16"	2.000"	2.000"	3 1/2"	778358	1R68	1.80
7548H	1 1/2"	2.062"	2.062"	3 1/2"	778359	1R70	1.88

SOCKET EXTENSIONS

5/8" Sq. & Hex. Dr.—13/16" Shank

NO.	LGTH.	GMC NO.	FORD NO.	WT., LBS.
7151	3"	785496	4R36	.32
7153	5"	785497	4R41	.60
7155	8"	785498	4R46	1.06
7157	12"	785499	4R51	1.62
7159	18"	785500	4R55	2.5

Regular 6-Pt. Socket

Power Adapters

Allow use of 1/2" and 3/4" drive power sockets on 5/8" drive power guns.

NO.	DESCRIPTION	LGTH.	WT., LBS.
7655	5/8" Female, 1/2" Male	1 7/8"	.37
7656	5/8" Female, 3/4" Male	2"	.42

Deep Socket

Stud Removers

See Page 47

Note: For STANDARD Nut and Bolt Sizes, Corresponding to NOMINAL Socket Openings, See Chart Opposite Page 64.

3/4" DR. POWER OR HAND SOCKETS

REGULAR SOCKETS—6-POINT (SINGLE HEXAGON)

NO.	OPENING SIZE	DEPTH OF PUNCHED OPENING	DIAM. OF NOSE	DIAM. OF DRIVE END	OVERALL LENGTH	GMC & CHRYSLER NUMBER	WT., LBS.
7824H	3/4"	9/16"	1.159"	1.375"	1 3/4"	.....	.42
7826H	13/16"	19/32"	1.237"	1.375"	1 7/8"	.....	.44
7828H	7/8"	21/32"	1.315"	1.375"	2"	785580	.41
7830H	15/16"	11/16"	1.378"	1.437"	2"	785581	.46
7831H	31/32"	11/16"	1.408"	1.437"	2"	785623	.51
7832H	1"	3/4"	1.443"	1.500"	2 1/16"	785582	.51
7834H	1 1/16"	13/16"	1.562"	1.562"	2 1/8"	785583	.67
7836H	1 1/8"	27/32"	1.625"	1.500"	2 3/16"	785584	.71
7838H	1 3/16"	7/8"	1.687"	1.550"	2 1/4"	785585	.82
7840H	1 1/4"	15/16"	1.750"	1.612"	2 1/4"	785586	.88
7842H	1 5/16"	31/32"	1.875"	1.675"	2 5/16"	785587	1.06
7844H	1 3/8"	1 1/32"	1.937"	1.721"	2 5/16"	785588	1.06
7848H	1 1/2"	1 3/32"	2.125"	1.875"	2 7/16"	.....	1.30
REGULAR SOCKET—4-POINT (SINGLE SQUARE)							
7826S	13/16"	11/16"	1.500"	1.500"	2"	.....	.64
EXTRA DEEP SOCKET—6-POINT (SINGLE HEXAGON)							
7748H	1 1/2"	1 3/32"	2.125"	2.125"	3 1/2"	.....	1.92

Extension

3/4" Dr. Power Sockets Are for Heavy-Duty Use on Manual Attachments and All Types of Power Drive

1/4" SQ. DR. MIDGET SOCKET WRENCHES

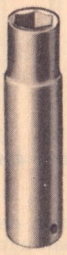
Only Midget Tools can do fast, efficient work on intricate jobs—you should have a complete 1/4" Square Drive assortment.

Midget sockets save time and trouble on little jobs that ordinary sockets can't handle, such as the repair of carburetors, distributors, radios, instruments, etc. They are accurately made from alloy steels for super strength—and scientifically heat treated to insure long, dependable service.

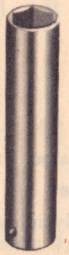
4706-4709

4710

4708S-4710S



4708L-4709L

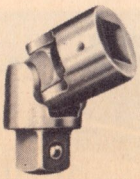


4710L-4714L

4744-4745

4737-4738

4737L-4738L



4770

REGULAR SOCKETS — 6-, 8- AND 12-POINT								
NO.	OPENING SIZE	NO. OF PTS.	AM. ST. HEAVY	AM. ST. REGULAR		AM. ST. LIGHT (SAE)	OVERALL LGTH.	WT., LBS.
				BOLT HEADS	NUTS			
4706	3/16"	6	....	....	....	....	1"	.02
4707	7/32"	6	....	....	....	....	1"	.02
4708	1/4"	6	....	....	....	....	1"	.02
4708S	1/4"	8	....	....	....	....	1"	.02
4709	9/32"	6	....	....	....	....	1"	.02
4710	5/16"	6	....	....	....	....	1"	.02
4710S	5/16"	8	....	....	....	....	1"	.05
4711	11/32"	6	....	....	....	....	1"	.03
4712	3/8"	6	....	1/4	....	....	1"	.03
4712S	3/8"	8	....	1/4	....	....	1"	.05
4714	7/16"	6	....	....	1/4	1/4	1"	.04
4716	1/2"	12	1/4(N)	5/16	....	5/16	1"	.05
EXTRA DEEP SOCKETS — 6-POINT								
4708L	1/4"	6	....	....	....	....	2"	.04
4709L	9/32"	6	....	....	....	....	2"	.04
4710L	5/16"	6	....	....	....	....	2"	.04
4711L	11/32"	6	....	....	....	....	2"	.07
4712L	3/8"	6	....	1/4	....	....	2"	.09
4714L	7/16"	6	....	....	1/4	1/4	2"	.11

(N) Nuts Only.

SCREWDRIVER SOCKETS

NO.	SIZE OF BIT	LENGTH	WT., LBS.
4737	Phillips No. 1	1"	.02
4737L	Phillips No. 1	2"	.03
4738	Phillips No. 2	1"	.02
4738L	Phillips No. 2	2"	.03
4744	3/16"x.030"	1 3/4"	.03
4745	1/4"x.030"	3"	.04

No. 4770 Universal Joint

Has 1/4" square female opening and drive plug. Makes work easier when working at a difficult angle. Length, 1 1/32". Wt., .04 Lb.

PROTO TOOLS
REG U.S. PAT. OFF. LOS ANGELES MADE IN U.S.A.

1/4" SQ. DRIVE MIDGET SOCKET WRENCH HANDLES, ATTACHMENTS AND SET

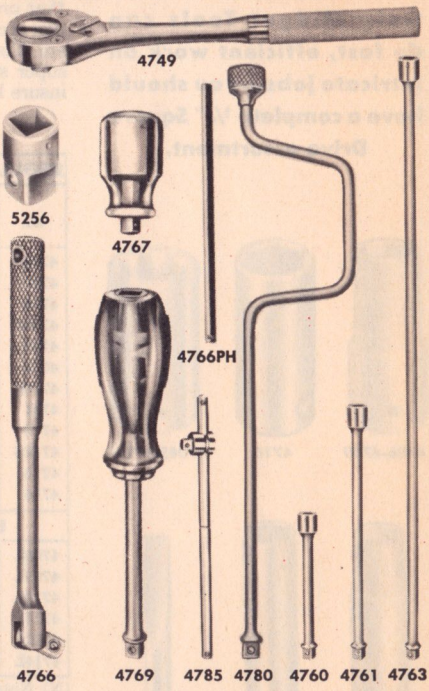
All midget handles and attachments are made from PROTO-specified alloy steel.

HANDLES			
NO.	DESCRIPTION	OVERALL LENGTH	WT., LBS.
4749	Reversible Ratchet	5"	.21
4766	Hinge Handle	5 3/8"	.15
4766PH	Pin Handle	4"	.03
4767	Spintype Plastic Handle, Stubby	2 5/32"	.07
4769	Spintype Plastic Handle, Regular	5 7/8"	.16
4780	Speed Handle	16"	.39
4785	Sliding Bar Handle	4 1/2"	.08

PARTS FOR RATCHET 4749			
NO.	DESCRIPTION	NO.	DESCRIPTION
4749C	Cover	4749R	Reversing Assembly
4749DL	Dog, Left		
4749DR	Dog, Right	4749S	Spring
4749H	Cover Screw	4749W	Wheel with Plug

ATTACHMENTS			
NO.	DESCRIPTION	OVERALL LENGTH	WT., LBS.
4760	Extension	3 1/2"	.05
4761	Extension	6"	.08
4763	Extension	14"	.18
4770	Universal Joint	1 7/32"	.04
5256	Adapter, 1/4" F., 3/8" M.	15/16"	.03
5255	Adapter, 3/8" F., 1/4" M.	15/16"	.05

STEEL SOCKET SET BOX			
4795	1"x2 1/4"x6 3/4" (Page 63)	6 1/2"	.52

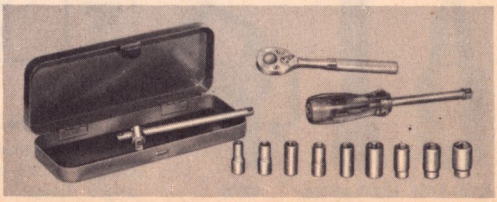


No. 4700B Set

Contents

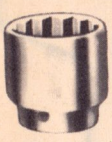
NO.	DESCRIPTION
4707	Socket, 6-Point, 7/32" Opening
4708	Socket, 6-Point, 1/4" Opening
4708S	Socket, 8-Point, 1/4" Opening
4709	Socket, 6-Point, 9/32" Opening
4710	Socket, 6-Point, 5/16" Opening
4710S	Socket, 8-Point, 5/16" Opening
4711	Socket, 6-Point, 11/32" Opening
4712	Socket, 6-Point, 3/8" Opening
4714	Socket, 6-Point, 7/16" Opening
4749	Reversible Ratchet, 5" Long
4769	Spintype Handle, 5 7/8" Long
4785	Sliding Bar Handle, 4 1/2" Long
4795	Steel Box, 1"x2 1/4"x6 3/4"
Weight, 1.20 Lbs.	

Here is a complete set of handy midget tools, designed for all kinds of light work where small nuts and bolts must be turned. The set includes a useful selection of basic tools to which you can add others as your needs require.



3/8" SQ. DRIVE CUB SOCKET WRENCHES

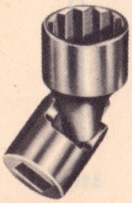
Cub thin-wall alloy steel sockets enable you to get at hard-to-reach nuts. They are tops in design and workmanship.



5218-5228

5214S-5216S

5014-5028



5276-5279 & 5272

5209S

5241-5243

5244

★ REGULAR SOCKETS — 12-POINT AND 6-POINT

NO. 12-PT.	NO. 6-PT.	NO. 8-PT.	OPENING SIZE	AM. STD. HEAVY	AM. ST. REG. BOLT HEADS	AM. ST. REG. NUTS	AM. ST. LIGHT (SAE)	OVERALL LGTH.	WT., LBS. 12-PT.	WT., LBS. 6-PT.	WT., LBS. 8-PT.
5210	5210H	....	5/16"	....	....	....	....	15/16"	.04	.04	....
5212	5212H	....	3/8"	....	1/4	....	....	15/16"	.04	.05	....
5214	5214H	....	7/16"	....	....	1/4	1/4	15/16"	.04	.04	....
5216	5216H	....	1/2"	1/4(N)	5/16	....	5/16	15/16"	.05	.05	....
5218	5218H	....	9/16"	....	3/8	5/16	3/8	1"	.06	.06	....
5220	5220H	....	5/8"	....	7/16	3/8	1/4	1"	.07	.07	....
5222	5222H	....	11/16"	3/8(N)	....	....	....	1 1/16"	.09	.10	....
5224	....	....	3/4"	....	1/2	7/16	1/2	1 1/16"	.09	....	....
5226	....	....	13/16"	....	....	1/2	....	1 3/16"	.12	....	....
5228	....	....	7/8"	1/2	9/16	9/16	9/16	1 1/4"	.15	....	....

★ REGULAR SOCKETS — 8-POINT

....	....	5208S	1/4"	....	....	....	....	15/16"	....	....	.04
....	....	•5209S	9/32"	....	....	....	....	15/16"	....	....	.05
....	....	5210S	5/16"	....	....	....	....	15/16"	....	....	.04
....	....	5212S	3/8"	....	1/4	....	....	15/16"	....	....	.06
....	....	5214S	7/16"	....	....	1/4	1/4	15/16"	....	....	.07
....	....	5216S	1/2"	1/4(N)	5/16	....	5/16	1"	....	....	.10

★ EXTRA DEEP SOCKETS — 12-POINT AND 6-POINT

5012	5012H	....	3/8"	....	1/4	....	....	2 1/8"	.10	.10	....
5014	5014H	....	7/16"	....	....	1/4	1/4	2 1/8"	.08	.10	....
5016	5016H	....	1/2"	1/4(N)	5/16	....	5/16	2 1/8"	.10	.11	....
5018	5018H	....	9/16"	....	3/8	5/16	3/8	2 1/8"	.14	.14	....
5020	5020H	....	5/8"	....	7/16	3/8	7/16	2 1/8"	.15	.16	....
5022	5022H	....	11/16"	3/8(N)	....	....	....	2 1/8"	.19	.21	....
5024	....	....	3/4"	....	1/2	7/16	1/2	2 1/8"	.21	....	....
5026	....	....	13/16"	....	....	1/2	....	2 1/2"	.28	....	....
5028	....	....	7/8"	1/2	9/16	9/16	9/16	2 1/2"	.27	....	....

★ UNIVERSAL SOCKETS — 12-POINT

5273	....	....	3/8"	....	1/4	....	....	1 15/32"	.09	....	....
5274	....	....	7/16"	....	....	1/4	1/4	1 15/32"	.09	....	....
5275	....	....	1/2"	1/4(N)	5/16	....	5/16	1 9/16"	.10	....	....
5276	....	....	9/16"	....	3/8	5/16	3/8	1 5/8"	.11	....	....
5277	....	....	5/8"	....	7/16	3/8	7/16	1 25/32"	.12	....	....
5278	....	....	11/16"	3/8(N)	....	....	....	1 13/16"	.13	....	....
5279	....	....	3/4"	....	1/2	7/16	1/2	1 29/32"	.15	....	....
5272	....	....	13/16"	....	....	1/2	....	1 31/32"	.18	....	....

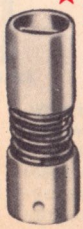
• 4-Point, for Drain Plug on Buick Dynaflow Torque Converters.
(N) Nuts Only.

★ For 6-Point Power Sockets, See Pages 18-20.

SCREWDRIVER SOCKETS

NO.	SIZE OF BIT	LENGTH	WT., LBS.
5240	5/16"x.040"	3 1/4"	.08
5241	Phillips No. 2	1 5/8"	.05
5242	Phillips No. 3	1 5/8"	.05
5243	Phillips No. 4	1 5/8"	.06
†5244	5/8"x.116"	1 1/4"	.08
5246	1/4"x.030"	2"	.06
‡5239	9/16"x.063"	1 7/8"	.12
‡5245	7/16"x.051	1 7/8"	.10

5246



5239 & 5245

†No. 5244 Is Used for Slotted Screw Adjustments on Steering Assemblies, Shock Absorbers, Starters, Generators, etc.

‡For Oil Pan Bolts. No. 5239 Fits 1940 and Later Model Chevrolets. No. 5245 Fits 1939 and Earlier Chevrolets.

PROTO TOOLS
LOS ANGELES

3/8" SQ. DRIVE CUB SOCKET WRENCH HANDLES AND CROWFOOT WRENCHES

Handles and attachments permit an almost unlimited number of assemblies for doing difficult jobs. The ratchet is light, strong, trouble-free, long-lived and reversible at flip of lever. Hinge handles, noted for strength and versatility, have hole for inserting pin handle to make a tee or ell attachment. The sliding bar handle provides good leverage with the plug at the end or can be used as a tee handle. Speed handles are for fast running of nuts and bolts.

HANDLES

NO.	DESCRIPTION	LENGTH	WT., LBS.
5249	Reversible Ratchet	7"	.55
5265	Hinge Handle	7 3/8"	.39
5266	Hinge Handle	12"	.83
5266PH	Pin Handle, 5/16" Round Stock	7 1/2"	.16
5280	Speed Handle	16 7/8"	.83
5281	Speed Handle	14 5/32"	74
5283	Speed Handle	30 3/8"	1.22
5285	Sliding Bar Handle	8"	.31

PARTS FOR RATCHET 5249

NO.	DESCRIPTION	NO.	DESCRIPTION
5249C	Cover	5249R	Reversing Assembly
5249DL	Dog, Left		
5249DR	Dog, Right	5249S	Spring
5249H	Cover Screw	5249W	Wheel with Plug

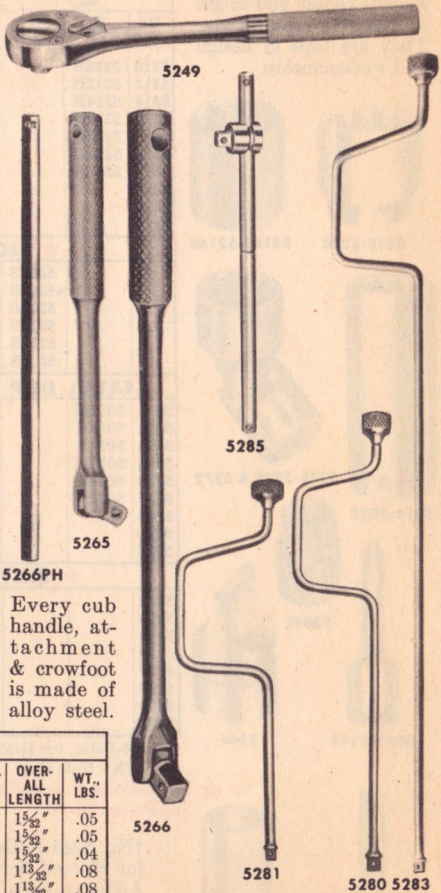
STEEL SET BOXES & SOCKET RACK

NO.	DESCRIPTION	WT., LBS.
5294	Box, 10 1/4"x2 1/4"x1 1/4" (Page 63)	.83
5295	Box, 18 1/2"x5 1/4"x1 1/2" (Page 63)	1.83
5297	Rack for 17 Sockets, 18 1/4" Long (Page 62)	.53

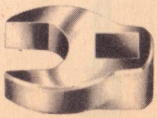
CROWFOOT WRENCHES

NO.	OPENING SIZE	AM. ST. HEAVY	AM. ST. REGULAR BOLT HEADS	AM. ST. REGULAR NUTS	AM. ST. LIGHT (SAE)	OVERALL LENGTH	WT., LBS.
4912	3/8"	....	1/4	....	....	15 5/32"	.05
4914	7/16"	....	....	1/4	1/4	15 5/32"	.05
4916	1/2"	1/4(N)	5/16	....	5/16	15 5/32"	.04
4918	9/16"	....	3/8	5/16	3/8	13 13/32"	.08
4920	5/8"	....	7/16	3/8	7/16	13 13/32"	.08
4922	11/16"	3/8(N)	....	....	....	13 13/32"	.08
4924	3/4"	....	1/2	7/16	1/2	12 1/32"	.14
4926	13/16"	....	....	1/2	....	12 1/32"	.12
4928	7/8"	1/2	9/16	9/16	9/16	12 1/32"	.12
4932	1"	....	....	5/8	....	17 5/8"	.12
4940	1 1/4"	3/4	....	....	7/8	21 1/32"	.23
4944	1 3/8"	....	....	....	....	21 1/32"	.21

(N) Nuts Only.

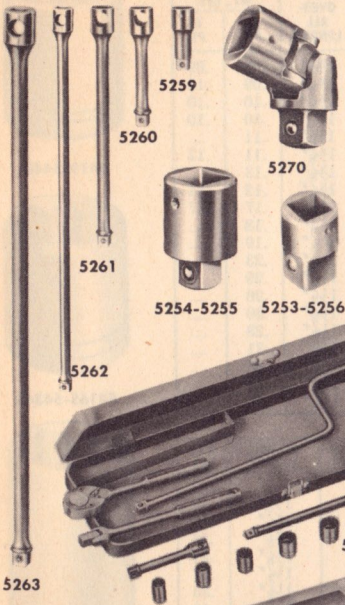


Every cub handle, attachment & crowfoot is made of alloy steel.



Popular crowfoot wrenches reach starters and do other jobs that normally require special tools.

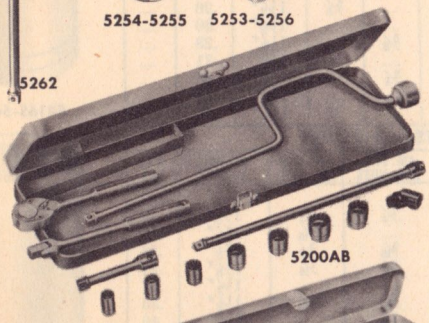
3/8" SQ. DRIVE CUB SOCKET WRENCH ATTACHMENTS AND SETS



ATTACHMENTS			
NO.	DESCRIPTION	LENGTH	WT., LBS.
5256	Adapter, 1/4" Female, 3/8" Male	15/16"	.03
5255	Adapter, 3/8" Female, 1/4" Male	15/16"	.05
5253	Adapter, 3/8" Female, 1/2" Male	1 3/16"	.07
5254	Adapter, 1/2" Female, 3/8" Male	1 5/16"	.10
5259	Extension	1 3/4"	.09
5260	Extension, with Pin Handle Hole	3 1/2"	.13
5261	Extension, with Pin Handle Hole	7 1/2"	.25
5262	Extension, with Pin Handle Hole	12"	.38
5263	Extension, with Pin Handle Hole	17"	.53
5270	Universal Joint	1 5/8"	.10

No. 5200AB Set

Containing seven sockets, three handles, two extensions and a universal joint, this expanded set will handle practically all 3/8" drive socket wrench jobs.

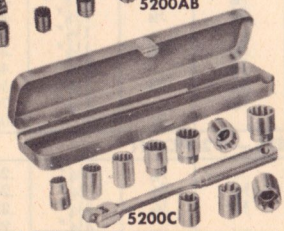


Contents

NO.	DESCRIPTION
5212	Socket, 12-Point, 3/8" Opening
5214	Socket, 12-Point, 7/16" Opening
5216	Socket, 12-Point, 1/2" Opening
5218	Socket, 12-Point, 9/16" Opening
5220	Socket, 12-Point, 5/8" Opening
5222	Socket, 12-Point, 11/16" Opening
5224	Socket, 12-Point, 3/4" Opening
5249	Reversible Ratchet, 7" Long
5260	Extension, 3 1/2" Long
5262	Extension, 12" Long
5265	Hinge Handle, 7 3/8" Long
5270	Universal Joint
5280	Speed Handle, 16 7/8" Long
5295	Steel Box, 1 1/2"x5 1/4"x18 1/2"
	Weight, 4.6 Lbs.

No. 5200C Set

A useful, low-cost set with three popular 8-point and seven 12-point sockets.



NO.	DESCRIPTION
5212	Socket,12-Pt.,3/8"Op.
5212S	Socket,8-Pt.,3/8"Op.
5214	Socket,12-Pt.,7/16"Op.
5214S	Socket,8-Pt.,7/16"Op.
5216	Socket,12-Pt.,1/2"Op.
5216S	Socket,8-Pt.,1/2"Op.
5218	Socket,12-Pt.,9/16"Op.

NO.	DESCRIPTION
5220	Socket,12-Pt.,5/8"Op.
5222	Socket,12-Pt.,11/16"Op.
5224	Socket,12-Pt.,3/4"Op.
5265	Hinge Handle, 7 3/8"
5266PH	Pin Handle, 7 1/2"
5294	Box,10 1/4"x2 1/4"x11/4"
	Weight, 2.1 Lbs.

No. 5200AA Set

Same as Set No. 5200AB, except in cardboard box instead of No. 5295 steel box. Weight, 3.2 Lbs.

No. 5000B Deep Socket Set

Includes the following nine extra deep 12-point sockets, packed in cardboard box.

NO.	OPENING SIZE	NO.	OPENING SIZE
5012	3/8"	5022	11/16"
5014	7/16"	5024	3/4"
5016	1/2"	5026	13/16"
5018	9/16"	5028	7/8"
5020	5/8"	Weight, 1.60 Lbs.	

PROTO TOOLS — LOS ANGELES

1/2" DR. STANDARD SOCKET WRENCHES

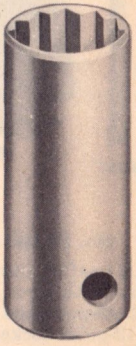
★ REGULAR SOCKETS — 12-POINT AND 6-POINT

NO. 12-PT.	NO. 6-PT.	OPENING SIZE	AM. STD. HEAVY	AM. STD. REG. BOLT HEADS	AM. STD. REG. NUTS	AM. ST. LIGHT (SAE)	OVERALL LENGTH	WT., LBS. 12-PT.	WT., LBS. 6-PT.
5412	5412H	3/8"	....	1/4	....	....	1 3/8"	.09	.09
5414	5414H	7/16"	....	....	1/4	1/4	1 3/8"	.09	.10
5416	5416H	1/2"	1/4(N)	5/16	....	5/16	1 3/8"	.10	.10
5418	5418H	9/16"	....	3/8	5/16	3/8	1 3/8"	.10	.10
5419	....	19/32"	5/16(N)	....	....	....	1 3/8"	.11	....
5420	5420H	5/8"	....	7/16	3/8	7/16	1 3/8"	.11	.12
5421	....	21/32"	....	....	....	....	1 3/8"	.13	....
5422	5422H	11/16"	3/8(N)	....	....	....	1 3/8"	.12	.14
5424	5424H	3/4"	....	1/2	7/16	1/2	1 3/8"	.17	.17
5425	....	25/32"	7/16(N)	....	....	....	1 3/8"	.18	....
5426	....	13/16"	....	....	1/2	....	1 3/8"	.19	....
5428	....	7/8"	1/2	9/16	9/16	9/16	1 1/2"	.23	....
5429	....	29/32"	....	....	....	....	1 1/2"	.29	....
5430	....	15/16"	9/16	5/8	....	5/8	1 1/2"	.28	....
5431	....	31/32"	....	....	....	....	1 1/2"	.29	....
5432	....	1"	....	....	5/8	....	1 1/2"	.28	....
5434	....	1 1/16"	5/8	....	....	3/4	1 1/2"	.31	....
5436	....	1 1/8"	....	3/4	3/4	....	1 3/4"	.45	....
5438	....	1 3/16"	....	....	....	....	1 3/4"	.49	....
5440	....	1 1/4"	3/4	....	....	7/8	1 3/4"	.51	....

5419-5440

★ REGULAR SOCKETS — 8-POINT

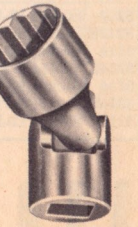
NO.	OPENING SIZE	AM. STD. HEAVY	AM. STD. REG. BOLT HEADS	AM. STD. REG. NUTS	AM. STD. LT. (SAE)	OVERALL LENGTH	WT., LBS.
5412S	3/8"	....	1/4	....	....	1 3/8"	.12
5414S	7/16"	....	....	1/4	1/4	1 3/8"	.12
5416S	1/2"	1/4(N)	5/16	....	5/16	1 3/8"	.12
5418S	9/16"	....	3/8	5/16	3/8	1 3/8"	.16
5420S	5/8"	....	7/16	3/8	7/16	1 3/8"	.21
5422S	11/16"	3/8(N)	....	....	....	1 1/2"	.27
5424S	3/4"	....	1/2	7/16	1/2	1 1/2"	.33
5426S	13/16"	....	....	1/2	....	1 1/2"	.40
5428S	7/8"	1/2	9/16	9/16	9/16	1 3/4"	.52
5432S	1"	....	....	5/8	....	1 3/4"	.76
5434S	1 1/16"	5/8	....	....	3/4	2"	1.05



5416S-5434S

★ EXTRA DEEP SOCKETS — 12-POINT

5340	1/2"	1/4(N)	5/16	....	5/16	3 1/4"	.25
5341	9/16"	....	3/8	5/16	3/8	3 1/4"	.24
5343	5/8"	....	7/16	3/8	7/16	3 1/4"	.25
5344	11/16"	3/8(N)	....	....	....	3 1/4"	.28
5345	3/4"	....	1/2	7/16	1/2	3 1/4"	.34
5347	13/16"	....	....	1/2	....	3 1/4"	.32
5348	7/8"	1/2	9/16	9/16	9/16	3 1/4"	.47
5349	15/16"	9/16	5/8	....	5/8	3 1/4"	.52
5351	1"	....	....	5/8	....	3 1/4"	.55
5352	1 1/16"	5/8	....	....	3/4	3 1/4"	.63
5353	1 1/8"	....	3/4	3/4	....	3 1/4"	.75



5343-5353

★ UNIVERSAL SOCKETS — 12-POINT

5475	1/2"	1/4(N)	5/16	....	5/16	1 25/32"	.17
5476	9/16"	....	3/8	5/16	3/8	1 13/16"	.16
5477	5/8"	....	7/16	3/8	7/16	1 7/8"	.17

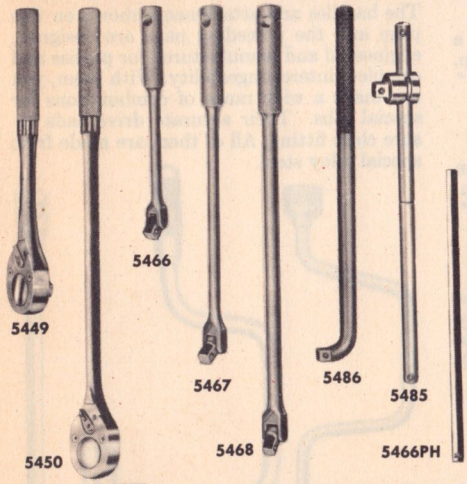
5477

(N) Nuts Only. All 1/2" Sq. Dr. Sockets Are Made of Alloy Steel.

Screwdriver Sockets Are Listed on Page 28 and Thin Nose Sockets on Page 49.

★ For 6-Point Power Sockets, See Pages 18-20.

1/2" SQUARE DRIVE STANDARD SOCKET WRENCH HANDLES AND SPRING TESTER



No. 5449 Reversible Ratchet

Strong, light, thin and free of trouble. Reversible at flip of lever. Length, 10¼". Weight, 1.28 Lbs.

No. 5450 Reversible Ratchet

Extra long to give added leverage. Length, 16". Weight, 1.82 Lbs.

Parts for Ratchets 5449 and 5450

5449C Cover
5449DL Dog, Left
5449DR Dog, Right
5449H Cover Screw
5449R Reversing Assembly
5449S Spring
5449W Wheel with Plug

Hinge Handles

Three for you to choose from. All upset knurled handles, drilled with pin hole. Slender shanks for lightness and balance.

5466 Length, 10". Weight, 1.16 Lbs.
5467 Length, 15". Weight, 1.56 Lbs.
5468 Length, 18". Weight, 1.67 Lbs.

No. 5300PH Pin Handle

For deep sockets. Length, 8". Stock, ⅜". Weight, .25 Lb.

No. 5466PH Pin Handle

A handy little bar to be used with any extension or hinge handle with pin hole. Length, 11½". Stock, ⅜". Weight, .35 Lb.

No. 5485 Sliding Bar Handle

Friction ball holds plug in any position. Used as a tee or offset handle. Length, 13". Weight, .94 Lb.

No. 5486 Ell Handle

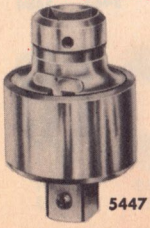
Where real leverage is required the ell handle is tops. Length, 14". Weight, 1.36 Lbs.

Each Tester Has Full Instructions

No. 5405 Spring Tester

This tester, with a torque wrench, measures valve and clutch spring recoil pressures. It provides a fast, accurate means for matching sets of springs—to increase power and efficiency of engines. Wt., 8.8 Lbs.

For Reflex-Type Flat Beam Torque Wrenches—Controlled by Feeling, Sound and Sight—See Page 52.



No. 5447 "Ratchetor" Ratcheting Attachment

Converts any ½" drive non-ratcheting handle or attachment into a ratcheting device. Used mainly with a hinge handle, hinge handle plus extension, speed handle or torque wrench. A simple, positive device, huskily built for high torque strength yet compact for ample clearance. Has very little backdrag. Ratchet has 34 teeth, providing positive engagement every 10½ degrees. Reversing lever acts directly on pawl, eliminating separate cam mechanism and possible misalignment or malfunction. Weight, .73 Lb.

PROTO TOOLS LOS ANGELES

1/2" SQUARE DRIVE STANDARD SOCKET WRENCH HANDLES AND ATTACHMENTS

The handles and attachments shown on this page and the preceding page are designed, engineered and manufactured for precise and complete interchangeability. With them, you can make a wide range of combinations for special jobs. Their accurate drive ends insure close fitting. All of them are made from special alloy steel.

No. 5469 Speed Hinge Handle

Combines the features of a speeder and a hinge handle. Ball-bearing knurled grip. Diameter of swing, 7". Length, 18". Stock, 9/16". Weight, 1.80 Lbs.

No. 5480 Speed Handle

Nothing finer for the speedy running on or off of nuts. Ball-bearing knurled grip. Diameter of swing, 7 1/2". Length, 18". Stock, 1/2". Weight, 1.52 Lbs..

Extensions

Provide necessary clearance for socket wrench handles on many jobs and thereby increase their usefulness. All have a hole for turning with pin handle, except 5460.

5460 Length, 2 1/2". Weight, .24 Lb.
5461 Length, 5". Weight, .36 Lb.
5463 Length, 10". Weight, .64 Lb.
5464 Length, 18". Weight, 1.07 Lbs.

No. 5470 Universal Joint

Makes your job easier when working at a difficult angle. Has 1/2" square drive male and female connections. Length, 2 1/64". Weight, .18 Lb.

Screwdriver Sockets

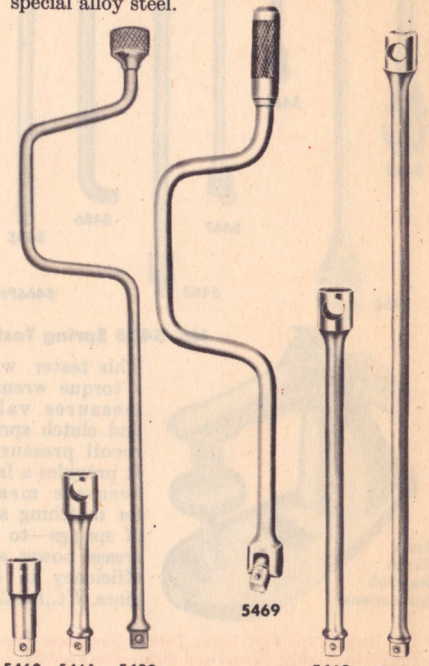
For use on drag links and on any large slotted screws. Can be turned by most 1/2" drive handles and attachments.

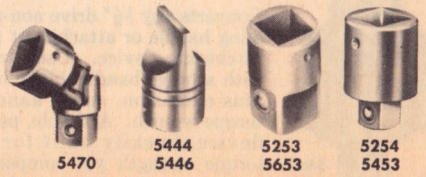
NO.	BIT SIZE	LENGTH	WT., LBS.
5444	3/4"x.115"	1 9/16"	.14
5446	15/16"x.154"	1 9/16"	.20

Adapters

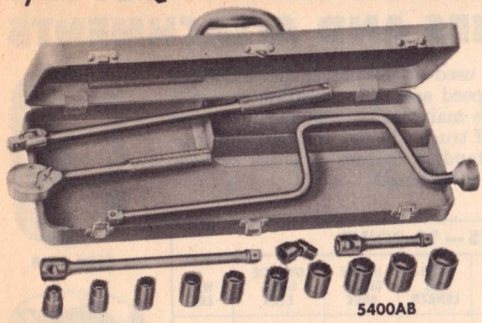
Permit the turning of 1/2" square drive socket wrenches with 3/8" and 3/4" drive handles and attachments. Also allow use of 1/2" drive handles and attachments for turning 3/8" and 3/4" socket wrenches.

NO.	DESCRIPTION	LENGTH	WT., LBS.
5253	3/8" Female, 1/2" Male	1 3/32"	.07
5254	1/2" Female, 3/8" Male	1 5/16"	.10
5653	1/2" Female, 3/4" Male	1 1/2"	.22
5453	3/4" Female, 1/2" Male	1 7/8"	.40



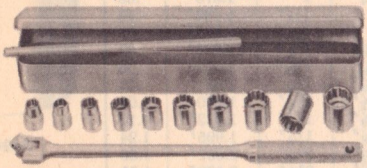


1/2" SQ. DRIVE SOCKET WRENCH SETS



5400AB

No. 5400C Set



A high-utility, low-cost set with 13 items:

NO.	DESCRIPTION
5414	Socket, 7/16" Op.
5416	Socket, 1/2" Op.
5418	Socket, 9/16" Op.
5420	Socket, 5/8" Op.
5422	Socket, 11/16" Op.
5424	Socket, 3/4" Op.
5426	Socket, 13/16" Op.
5428	Socket, 7/8" Op.
5430	Socket, 15/16" Op.
5432	Socket, 1" Op.
5466PH	Pin Handle, 11 1/2"
5467	Hinge Handle, 15"
5494	Steel Box, 17"x3"x2"
	Weight, 5.8 Lbs.

No. 5300B Deep Socket Set

Includes nine 1/2" drive 12-point deep sockets—Nos. 5340, 5341, 5343, 5344, 5345, 5347, 5348, 5349 and 5351—with openings of 1/2", 9/16", 5/8", 11/16", 3/4", 13/16", 7/8", 15/16" and 1". Packed in cardboard box. Weight, 3.4 Lbs.

No. 5300E Spark Plug Socket Set

No. 5300PH pin handle and six deep sockets—Nos. 5343, 5344, 5347, 5348, 5349 and 5351—with openings of 5/8", 11/16", 13/16", 7/8", 15/16" and 1". Packed in cardboard box. Weight, 2.8 Lbs.

No. 5400AB Set

A popular set, containing 17 items:

NO.	DESCRIPTION
5414	Socket, 12-Point, 7/16" Opening
5416	Socket, 12-Point, 1/2" Opening
5418	Socket, 12-Point, 9/16" Opening
5420	Socket, 12-Point, 5/8" Opening
5422	Socket, 12-Point, 11/16" Opening
5424	Socket, 12-Point, 3/4" Opening
5426	Socket, 12-Point, 13/16" Opening
5428	Socket, 12-Point, 7/8" Opening
5430	Socket, 12-Point, 15/16" Opening
5432	Socket, 12-Point, 1" Opening
5449	Reversible Ratchet, 10 1/4" Long
5461	Extension, 5" Long
5463	Extension, 10" Long
5467	Hinge Handle, 15" Long
5470	Universal Joint
5480	Speed Handle, 18" Long
5495	Steel Box, 13/4"x81/4"x19 1/2"
	Weight, 11 Lbs.

No. 5400AA Set

Same as Set No. 5400AB except in cardboard box instead of No. 5495 steel box. Weight, 7.7 Lbs.

No. 5400-OC Set

A complete 27-item "Super Set":

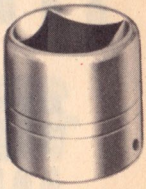
NO.	DESCRIPTION
5414	Socket, 12-Point, 7/16" Opening
5416	Socket, 12-Point, 1/2" Opening
5418	Socket, 12-Point, 9/16" Opening
5419	Socket, 12-Point, 19/32" Opening
5420	Socket, 12-Point, 5/8" Opening
5421	Socket, 12-Point, 21/32" Opening
5422	Socket, 12-Point, 11/16" Opening
5424	Socket, 12-Point, 3/4" Opening
5425	Socket, 12-Point, 25/32" Opening
5426	Socket, 12-Point, 13/16" Opening
5428	Socket, 12-Point, 7/8" Opening
5430	Socket, 12-Point, 15/16" Opening
5431	Socket, 12-Point, 31/32" Opening
5432	Socket, 12-Point, 1" Opening
5434	Socket, 12-Point, 1 1/16" Opening
5436	Socket, 12-Point, 1 1/8" Opening
5438	Socket, 12-Point, 1 3/16" Opening
5440	Socket, 12-Point, 1 1/4" Opening
5449	Reversible Ratchet, 10 1/4" Long
5460	Extension, 2 1/2" Long
5461	Extension, 5" Long
5463	Extension, 10" Long
5466PH	Pin Handle, 11 1/2" Long
5468	Hinge Handle, 18" Long
5470	Universal Joint
5480	Speed Handle, 18" Long
5495	Steel Box, 13/4"x81/4"x19 1/2"
	Weight, 15 Lbs.

PROTO TOOLS
REG U.S. PAT OFF. LOS ANGELES MADE IN U.S.A.

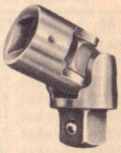
3/4" SQUARE DRIVE HEAVY-DUTY SOCKET WRENCHES AND ATTACHMENTS

These sturdy fine alloy steel tools are used by mechanics and industrial workers who need strength, power, speed and safe operation on really tough jobs. They are essential for the maintenance and installation of heavy machinery and for the repair of trucks, buses, automobiles, tractors and farm implements. An outstanding feature of these sockets, which saves time and money, is their extra length.

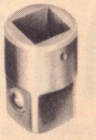
5528-5568



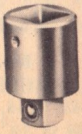
5526S



5670



5653 & 5853



5453 & 5854

★ REGULAR SOCKETS — 12-POINT

NO.	NOMINAL OPENING SIZE	AM. STD. HEAVY	AM. STD. REGULAR	AM. STD. LIGHT (SAE)	OVER-ALL LENGTH	INSIDE CLEARANCE	OUTSIDE DIAMETER	WT., LBS.
5528	7/8"	1/2	9/16	9/16	1 3/4"	1"	1.276"	.31
5530	15/16"	9/16	5/8 (B)	5/8	1 3/4"	1"	1.370"	.38
5532	1"	....	5/8 (N)	....	2"	1 1/4"	1.432"	.46
5534	1 1/16"	5/8	....	3/4	2"	1 1/4"	1.495"	.52
5536	1 1/8"	....	3/4	....	2 5/16"	1 9/16"	1.557"	.63
5538	1 3/16"	....	....	....	2 5/16"	1 9/16"	1.620"	.66
5540	1 1/4"	3/4	....	7/8	2 5/16"	1 9/16"	1.682"	.73
5542	1 5/16"	....	7/8	....	2 1/2"	1 3/4"	1.870"	1.03
5544	1 3/8"	....	....	....	2 5/8"	1 7/8"	1.932"	1.17
5546	1 7/16"	7/8	....	1	2 5/8"	1 7/8"	1.995"	1.24
5548	1 1/2"	....	1	....	3 1/2"	2 3/4"	2.057"	1.66
5550	1 9/16"	....	....	....	3 1/2"	2 3/4"	2.120"	1.75
5552	1 5/8"	1	....	1 1/8	3 1/2"	2 3/4"	2.245"	2.0
5554	1 11/16"	....	1 1/8	....	3 1/2"	2 3/4"	2.370"	2.3
5556	1 3/4"	....	....	....	3 1/2"	2 3/4"	2.370"	2.2
5558	1 13/16"	1 1/8	....	1 1/4	3 1/2"	2 3/4"	2.495"	2.6
5560	1 7/8"	....	1 1/4	....	3 1/2"	2 3/4"	2.557"	2.6
5564	2"	1 1/4	....	1 3/8	3 1/2"	2 3/4"	2.745"	3.1
5568	2 1/8"	....	....	....	3 1/2"	2 3/4"	2.932"	3.6
5572	2 1/4"	....	1 1/2	....	3 13/16"	3 1/16"	3.120"	3.8
5576	2 3/8"	1 1/2	....	....	3 15/16"	3 1/8"	3.250"	3.8

(B) Bolt Heads Only. (N) Nuts Only.

★ For 6-Point Power Sockets, See Pages 18-20.

No. 5526S Socket

Special 4-point (single square) socket with 13/16" opening. Fits all Budd dual wheels and Lambert spacers as used on many truck models, and Budd dual wheel inner nut on 1935-1948 Dodge 1 1/2 and 2-ton and 1931-1948 Ford 1 1/2-ton trucks. Length, 2". Inside clearance, 11/16". Outside diameter, 1.562". Weight, .72 Lb.

No. 5670 Universal Joint

3/4" male and female connections. Length, 3 9/16". Weight, .96 Lb.

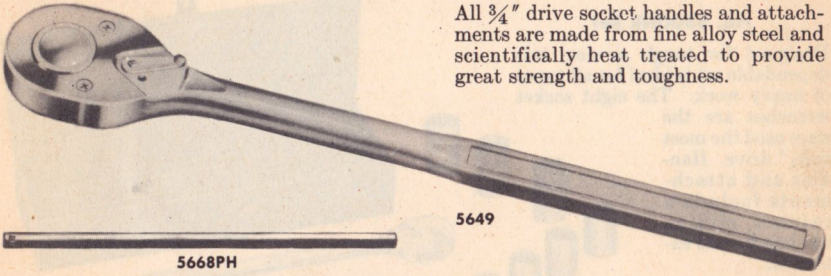
Adapters

These adapters make it possible to turn 3/4" square drive socket wrenches with 1/2" and 1" handles and attachments, and to use 3/4" drive handles and attachments for turning 1/2" and 1" drive socket wrenches.

NO.	FEMALE OPENING	MALE DRIVE	LENGTH	WT., LBS.
5653	1/2"	3/4"	1 1/2"	.22
5453	3/4"	1/2"	1 7/8"	.40
5853	3/4"	1"	2 1/4"	.72
5854	1"	3/4"	2 11/16"	1.34

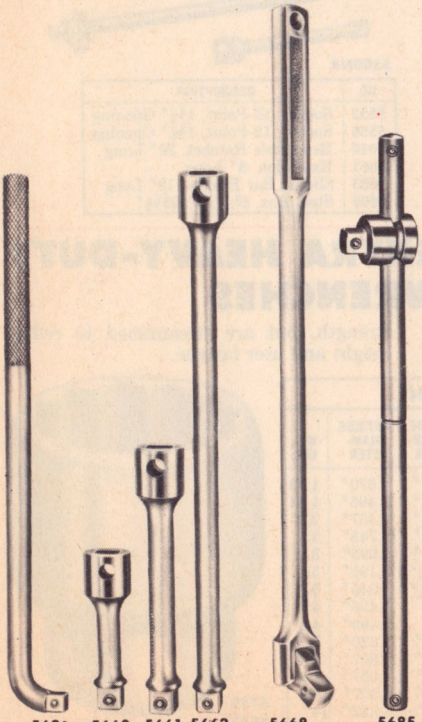
3/4" SQ. DRIVE HEAVY-DUTY SOCKET WRENCH HANDLES AND ATTACHMENTS

All ¾" drive socket handles and attachments are made from fine alloy steel and scientifically heat treated to provide great strength and toughness.



5649

5668PH



5686 5660 5661 5663 5668 5685

No. 5649 Reversible Ratchet

Very strong for hard pulls. Precision made. Length, 20". Weight, 6.2 Lbs.

Parts for Ratchet 5649

5649C	Cover	5649R	Reversing Assembly
5649DL	Dog, Left		
5649DR	Dog, Right	5649S	Spring
5649H	Cover Screw	5649W	Wheel with Plug

No. 5668 Hinge Handle

Hinged plug operates at any angle and is held firmly in position by friction ball. Length, 22". Weight, 3.8 Lbs.

No. 5668PH Pin Handle

Stock, ½". Length, 12". Weight, .62 Lb.

No. 5685 Sliding Bar Handle

Friction ball in plug holds it at any point on 13/16" diameter bar. Length, 18". Weight, 3.3 Lbs.

No. 5686 Ell Handle

A very handy tool that gives powerful leverage. Deeply knurled grip. Length, 17¼". Weight, 4.2 Lbs.

Extensions

Have hole for turning with pin handle.

5660	Length, 5". Weight, .92 Lb.
5661	Length, 8". Weight, 1.35 Lbs.
5663	Length, 16". Weight, 2.3 Lbs.

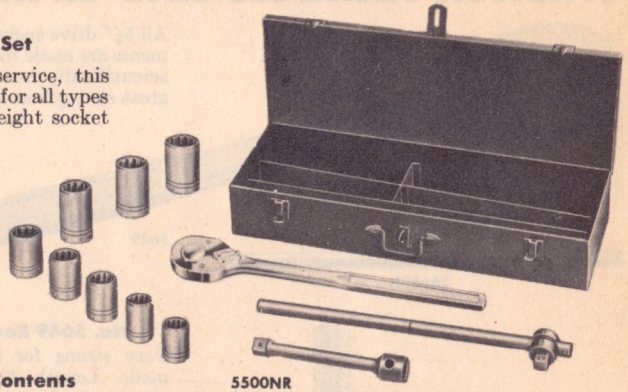
PROTO TOOLS
LOS ANGELES

3/4" SQUARE DRIVE HEAVY-DUTY SOCKET WRENCH SET

No. 5500NR Set

Designed for tough service, this dependable set is ideal for all types of heavy work. The eight socket wrenches are the sizes used the most in 3/4" drive. Handles and attachments include a ratchet, sliding bar handle and extension.

Weight, 29 Lbs.



5500NR

Contents

NO.	DESCRIPTION
5534	Socket, 12-Point, 1 1/16" Opening
5536	Socket, 12-Point, 1 1/8" Opening
5540	Socket, 12-Point, 1 1/4" Opening
5542	Socket, 12-Point, 1 5/16" Opening
5546	Socket, 12-Point, 1 3/16" Opening
5548	Socket, 12-Point, 1 1/2" Opening

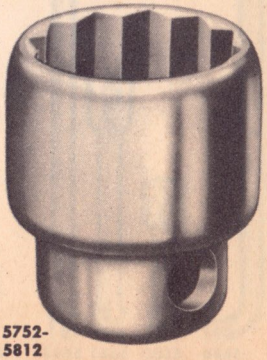
NO.	DESCRIPTION
5552	Socket, 12-Point, 1 5/8" Opening
5556	Socket, 12-Point, 1 3/4" Opening
5649	Reversible Ratchet, 20" Long
5661	Extension, 8" Long
5685	Sliding Bar Handle, 18" Long
5695	Steel Box, 3 3/4"x8"x22 1/2"

1" SQUARE DRIVE EXTRA HEAVY-DUTY SOCKET WRENCHES

These alloy steel huskies are for extra heavy, tough work. They are designed for great strength, but are streamlined to reduce weight and user fatigue.

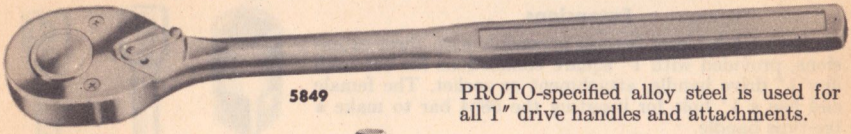
REGULAR SOCKETS — 12-POINT

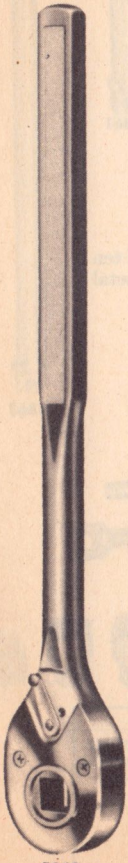
NO.	NOMINAL OPENING SIZE	AM. STD. HEAVY	AM. STD. REGULAR	AM. STD. LIGHT (SAE)	OVERALL LENGTH	INSIDE CLEARANCE	OUTSIDE DIAMETER	WT., LBS.
5752	1 5/8"	1	....	1 1/8	3 1/4"	2 1/4"	2.370"	1.73
5758	1 13/16"	1 1/8	....	1 1/4	3 5/16"	2 5/16"	2.495"	1.84
5760	1 7/8"	....	1 1/4	....	3 3/8"	2 3/8"	2.557"	2.0
5764	2"	1 1/4	....	1 3/8	3 7/16"	2 7/16"	2.745"	2.3
5770	2 3/16"	1 3/8	....	1 1/2	3 3/4"	2 3/4"	2.995"	3.2
5772	2 1/4"	....	1 1/2	....	3 13/16"	2 13/16"	3.120"	3.4
5776	2 3/8"	1 1/2	....	....	3 15/16"	2 15/16"	3.245"	3.7
5780	2 1/2"	....	....	....	4"	3"	3.495"	4.6
5782	2 9/16"	1 5/8	....	....	4"	3"	3.495"	4.6
5784	2 5/8"	....	1 3/4	....	4 1/8"	3 1/8"	3.620"	5.1
5788	2 3/4"	1 3/4	....	....	4 3/8"	3 3/8"	3.807"	6.4
5794	2 15/16"	1 7/8	....	....	4 5/8"	3 5/8"	4.057"	7.4
5800	3 1/8"	2	....	....	4 7/8"	3 7/8"	4.307"	9.4
5812	3 1/2"	2 1/4	....	....	5 1/2"	4 1/2"	4.932"	14



5752-5812

1″ SQUARE DRIVE EXTRA HEAVY-DUTY SOCKET WRENCH HANDLES


5849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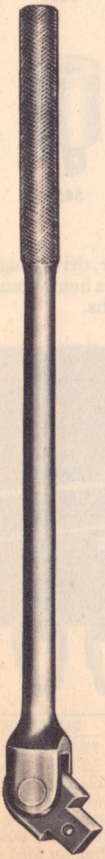
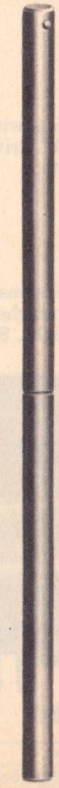
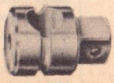

5868


5884


5885

PROTO-specified alloy steel is used for all 1″ drive handles and attachments.

Reversible Ratchets

The "Big Berthas" of all ratchets. Made extra strong for powerful pulls at high speed. Overall length, 26″.

5849—Ratchet complete with male adapter plug No. 5852. Weight, 12 Lbs.

5848—Ratchet with 1″ square female wheel. Weight, 11 Lbs.

5852

No. 5852 Adapter Plug

1″ square male plug for converting No. 5848 ratchet to No. 5849 ratchet. Weight, 72 Lb.

Parts for Ratchet 5848

5848C	Cover	5848R	Reversing Assembly
5848DL	Dog, Left	5848S	Spring
5848DR	Dog, Right	5848W	Female Wheel
5848H	Cover Screw		

No. 5868 Hinge Handle

You will find this the handiest tool for nut turning you ever used. 1″ male connection. Length, 26″. Weight, 7.7 Lbs.

No. 5884 1″ Bar

This handy bar is used to turn the big 1″ drive sockets which are drilled with a hole for the bar. It also can be used as a handle to make a tee drive with extensions. Has ball stop on one end. Length, 24″. Weight, 5.3 Lbs.

No. 5885 Sliding Plug

Used with No. 5884 bar as a sliding bar handle. Has friction ball to hold it firmly at any point on bar. Weight, 1.38 Lbs.

PROTO TOOLS
REG. U.S. PAT. OFF. LOS ANGELES MADE IN U.S.A.

1" SQUARE DRIVE EXTRA HEAVY-DUTY SOCKET WRENCH ATTACHMENTS & SET

Extensions

Hard-to-reach places become accessible with these extensions, provided with 1" square connections for use with any 1" drive handle, attachment or socket. The female end has a 1" hole for inserting the 5884 bar to make a tee-type handle.

5861—Length, 8". Weight, 2.5 Lbs.
5863—Length, 17". Weight, 4.5 Lbs.

5853

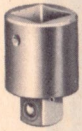
5861

5863

Adapters

With these adapters you can turn 1" drive sockets with any ¾" drive handle or attachment, and use 1" drive handles and attachments to turn ¾" drive sockets.

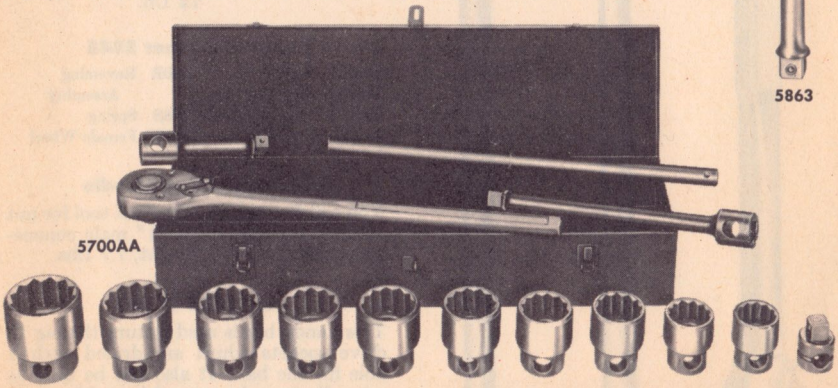
5853—¾" Female, 1" Male. Weight, .72 Lb.
5854—1" Female, ¾" Male. Weight, 1.34 Lbs.



5854

No. 5700AA Set

An ideal set for really tough jobs that demand extra sturdy tools. It is serviceable and complete, including a ratchet, two extensions, bar, drive plug and ten socket wrenches in a heavy-gauge metal box. Weight, 88 Lbs.



5700AA

NO.	DESCRIPTION
5760	Socket, 12-Point, 1 7/8" Opening
5764	Socket, 12-Point, 2" Opening
5770	Socket, 12-Point, 2 3/16" Opening
5772	Socket, 12-Point, 2 1/4" Opening
5776	Socket, 12-Point, 2 3/8" Opening
5780	Socket, 12-Point, 2 1/2" Opening
5782	Socket, 12-Point, 2 9/16" Opening
5784	Socket, 12-Point, 2 5/8" Opening

NO.	DESCRIPTION
5788	Socket, 12-Point, 2 3/4" Opening
5794	Socket, 12-Point, 2 15/16" Opening
5849	Reversible Ratchet, 26" Long
5861	Extension, 8" Long
5863	Extension, 17" Long
5884	Bar Handle, 24" Long
5885	Drive Plug for 5884 Bar
5894	Steel Box, 5"x8 1/4"x30"

PLIERS

Among the many styles and sizes of pliers available in the extensive PROTO tool line, you can find the right ones for any job. And you are assured of getting high quality.

Skilled workmen, with the aid of modern equipment, forge and machine these pliers to high standards. Long life is insured by their sturdy construction and by the use of fine high-grade steels.

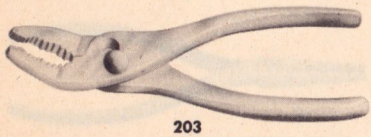
When you examine these pliers you will find many superior features—the result of years of experience in plier design. They are easy to work. They have good balance —good "feel." They have correct leverage. Gripping teeth are shaped properly. Sharp cutting edges are perfectly matched and built to withstand hard use. Patterned handles are shaped to fit the hand, giving a sure grip.

201-202

Nos. 201 & 202 Thin Nose Slip Joint Pliers

Designed with a slim nose to reach into tight places. Have two jaw-opening adjustments and shear-type wire cutter. Handy for all automobile owners and mechanics. Two sizes.

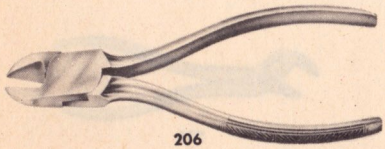
NO.	LENGTH	WEIGHT
201	5″	.25 Lb.
202	6″	.35 Lb.



203

No. 203 Thin Bent Nose Slip Joint Plier

Made with 30° offset thin nose which reaches into many places inaccessible with straight nose pliers. Handy for pulling small nails and staples. Very useful around home. Has two jaw-opening adjustments and wire cutter of shear type. Length, 7″. Weight, .43 Lb.

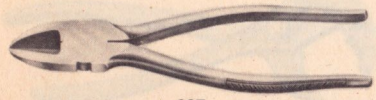


206

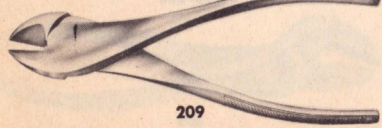
Nos. 206 & 207 Diagonal Cutting Pliers

Thin, narrow jaws work easily in congested places. Sharp cutting edges are perfectly matched and withstand hard usage. Useful for switchboard, telephone, ignition and other electrical work.

NO.	LENGTH	WEIGHT
206	6″	.31 Lb.
207	7″	.46 Lb.



207



209

No. 209 Heavy-Duty Diagonal Cutting Plier

A powerful cutting plier, designed with the box joint close to the short jaws to provide great leverage. Cuts heavy wire with little effort. Sharp cutting edges are perfectly matched. Every mechanic needs this plier. Length, 7″. Weight, .49 Lb.

Spare Parts for Pliers

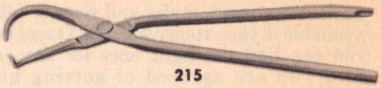
NO.	NET PRICE	DESCRIPTION	NO.	NET PRICE	DESCRIPTION	NO.	NET PRICE	DESCRIPTION
201B	.03	Bolt and Nut for 201 and 275	235B	.12	Bolt and Nut for 235	241B	.07	Bolt and Nut for 241
202B	.03	Bolt and Nut for 202, 203, 236, 239, 276, 278	238B	.03	Bolt and Nut for 238	246B	.03	Bolt and Nut for 246 and 257
			240B	.20	Bolt and Nut for 240	280B	.07	Bolt and Nut for 280

PROTO TOOLS LOS ANGELES

PLIERS

No. 215 Brake Spring Plier

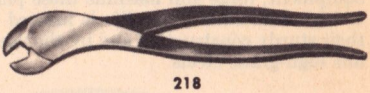
Curved jaw clears edge of brake shoe to bring it in close adjustment with center line of spring. Thin hooked jaw slips easily under spring. A necessary plier for auto mechanics. Length, 12″. Weight, .61 Lb.



215

No. 218 Angle Nose Battery Plier

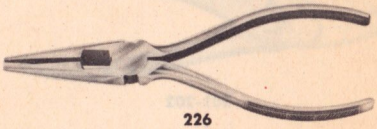
Thin jaws at 30° angle make terminal nuts easily accessible. No matter what condition the nuts or bolts are in, the gripping jaws take a sure hold. Length, 8″. Weight, .40 Lb.



218

No. 226 Needle Nose Side Cutting Plier

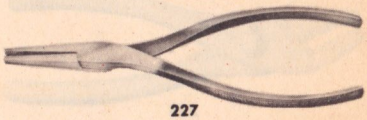
The long thin nose and the strong, sharp side cutters make an ideal combination for radio, telephone and other electrical work. A good long-reach plier. Length, 6″. Weight, .28 Lb.



226

No. 227 Duck Bill Plier

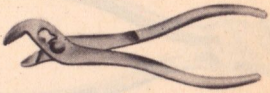
A useful plier for carburetor, radio, refrigerator, electrical typewriter, office machine and many other types of work. Long handles provide powerful leverage. Length, 8″. Weight, .31 Lb.



227

No. 235 Slip Joint Ignition Plier

Designed for ignition work but has many other uses where narrow jaws are needed. Light and convenient to use. Has three jaw-opening adjustments. Length, 4½″. Weight, .06 Lb.

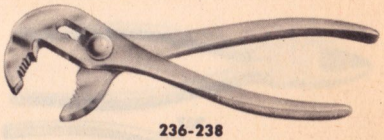


235

Nos. 236 & 238 Parrot Nose Wrench Pliers

Combination plier and pipe wrench design, with 75° offset nose and four jaw-opening adjustments. Noted for great gripping power. Ideal for many uses, especially pipe and tubing work.

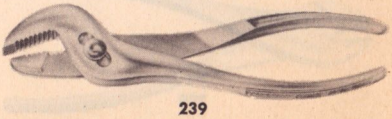
NO.	LENGTH	WEIGHT
236	6″	.41 Lb.
238	7½″	.61 Lb.



236-238

No. 239 Wrench Plier

A popular type, with long, slim 20° offset nose and three jaw-opening adjustments. Jaws hold objects in front of center, giving a powerful gripping action. Length, 8″. Weight, .54 Lb.

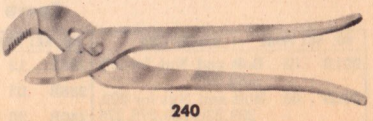


239

Nos. 240 & 241 Water Pump Pliers

All-purpose pliers, with five jaw-opening adjustments. Teeth are shaped as in a pipe wrench, insuring positive grip on round objects.

NO.	TYPE DUTY	LENGTH	WEIGHT
240	Heavy	9½″	.58 Lb.
241	Light	9½″	.52 Lb.



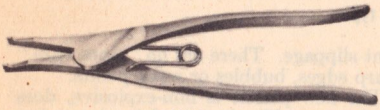
240

PLIERS

246

No. 246 Comb. Slip Joint Side Cutting Plier

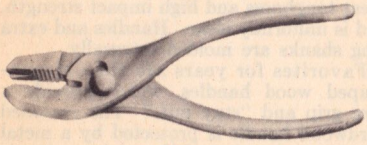
A well-made plier that cuts most wire and nails with ease. Has two jaw-opening adjustments. Length, 6″. Weight, .49 Lb.



250

No. 250 Lock Ring & "Horseshoe" Washer Plier

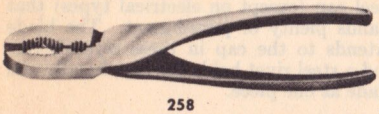
A money-saving dual-purpose plier, for spreading both soft iron "horseshoe" lock washers used on auto brakes and contracting-type tempered steel lock rings used on shafting to locate bearings, gears, etc. Length, 7 15/16″. Weight, .33 Lb.



257

No. 257 Heavy-Duty Universal Plier

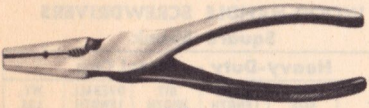
A curved jaw grips objects of almost any shape. Other jaw is grooved for gripping wire, etc. Has a shear-type wire cutter and two jaw-opening adjustments. Length, 7″. Weight, .58 Lb.



258

No. 258 Gas Plier

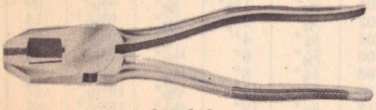
For studs, tubing and pipe. Handles two tube size ranges. Jaw ends have lengthwise tube-gripping teeth. Length, 8″. Weight, .62 Lb.



260

No. 260 Long Thin Nose Telephone Plier

Popular for telephone work and for radio installation and repair. Long thin nose gets into tight places. Has powerful shear-type wire cutter. Length, 6″. Weight, .25 Lb.

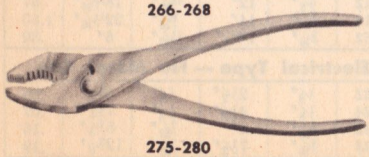


266-268

Nos. 266 & 268 Lineman's Side Cutting Pliers

For utility linemen's work but used also for wiring and electrical equipment installation and maintenance. Useful, too, around filling stations and garages. The sharp edges stand hard usage.

NO.	LENGTH	WEIGHT
266	6″	.43 Lb.
268	8″	.81 Lb.

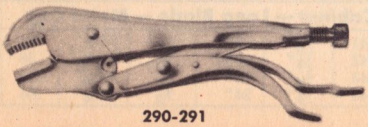


275-280

Nos. 275-280 Combination Slip Joint Pliers

Leaders for general utility, design and service. Have two jaw-opening adjustments and a shear-type wire cutter. Four sizes.

NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT
275	5″	.26 Lb.	278	8″	.50 Lb.
276	6″	.41 Lb.	280	10″	.88 Lb.



290-291

Nos. 290 & 291 Vise-Wrench-Pliers

Suitable for portable hand vise (main use), clamp, adjustable wrench, pipe wrench or plier. Extra lever releases ton grip easily and safely.

NO.	CAPACITY	LENGTH	WEIGHT
290	15/16″	7″	.72 Lb.
291	1 1/4″	10″	1.12 Lbs.

PROTO TOOLS
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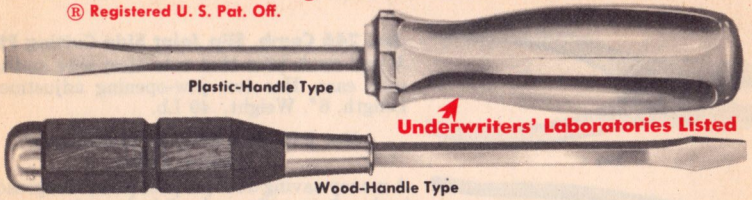
"BET'R-GRIP" SCREWDRIVERS

® Registered U. S. Pat. Off.



Plastic-Handle Type

Underwriters' Laboratories Listed

Wood-Handle Type

There are many reasons for the great popularity of these "Bet'r-Grip" screwdrivers. Blades are made from fine alloy steels, conforming to rigid specifications, and are scientifically heat treated their full length to give the right degrees of hardness, strength and toughness. Stock is of ample size to give a solid drive. Bits are tapered gradually to provide clearance, and bit sections are accurately ground to insure proper fit.

The revolutionary new plastic handles feature a much-improved plastic and a hand-fitting shape, designed and tested with the help of mechanics. They are rounded and larger through the palm section and smaller where the little finger comes. Flutes and raised markings prevent slippage. There are no "pinch ears," sharp edges, bubbles or weak points.

The new plastic is non-explosive, does not burn readily, is a good insulator, has great toughness and high impact strength, and is uniformly clear. Handles and extra long shanks are molded integrally.

Favorites for years are the octagon-shaped wood handles, which provide a sure grip and "stay put." The seasoned hardwood handle is protected by a metal ferrule on the blade end and by a drawn steel cap (except on electrical types) that stands plenty of punishment. The blade extends to the cap in these screwdrivers and a steel rivet holds the cap, handle and blade as one piece.

PLASTIC-HANDLE SCREWDRIVERS

NO.	SHANK SIZE	BLADE LENGTH	BIT WIDTH	OVERALL LENGTH	WT., LBS.
Round Shank					
9604	1/4"	4"	9/32"	8"	.17
9606	5/16"	6"	11/32"	10 3/8"	.30
9608	3/8"	8"	13/32"	13"	.47
9622	1/8"	2 1/2"	1/8"	5 1/2"	.04
9624	1/8"	4 1/2"	1/8"	7 1/4"	.06
9632	5/16"	4"	5/16"	7 3/8"	.10
9633	5/16"	7 1/2"	5/16"	10 7/8"	.13
9638	5/16"	13 1/2"	5/16"	16 7/8"	.17
9642	1/4"	9"	9/32"	13"	.24
9643	5/16"	10"	11/32"	14 3/8"	.39
Square Shank					
9651	3/16"	1"	7/32"	2 7/8"	.07
9652	1/4"	1 1/2"	9/32"	3 1/8"	.12
9804	1/4"	4"	9/32"	8"	.19
9806	5/16"	6"	11/32"	10 3/8"	.36
9808	3/8"	8"	13/32"	13"	.55
9822	1/8"	2 1/2"	1/8"	5 1/4"	.04
9832	5/16"	4"	7/32"	7 3/8"	.11
9833	5/16"	7 1/2"	7/32"	10 7/8"	.15
9842	1/4"	9"	9/32"	13"	.28
9843	5/16"	10"	11/32"	14 3/8"	.45

WOOD-HANDLE SCREWDRIVERS

NO.	SHANK SIZE	BLADE LENGTH	BIT WIDTH	OVERALL LENGTH	WT., LBS.
Square Shank					
Heavy-Duty — Metal Cap					
9701	3/16"	1 1/2"	7/32"	4 5/16"	.09
9702	3/16"	2 1/2"	7/32"	6 21/32"	.15
9704	1/4"	4"	9/32"	9 3/32"	.29
9706	5/16"	6"	11/32"	12 3/16"	.51
9708	3/8"	8"	13/32"	14 13/16"	.78
9710	3/8"	10"	13/32"	16 13/16"	.87
9712	3/8"	12"	13/32"	18 13/16"	.97
9714	7/16"	14"	9/16"	22 11/16"	1.55
9752	5/16"	1 11/16"	11/32"	6"	.30
Electrical Type — No Metal Cap					
9722	1/8"	2 1/2"	1/8"	5 3/4"	.06
9724	1/8"	4 1/2"	1/8"	7 3/4"	.07
9732	3/16"	4"	7/32"	8 7/8"	.16
9733	3/16"	7 1/2"	7/32"	12 3/8"	.19
Cabinet — Long Blade — Metal Cap					
9741	3/16"	9"	7/32"	13 25/32"	.21
9742	1/4"	9 1/2"	9/32"	14 19/32"	.38
9743	5/16"	10"	11/32"	16 3/16"	.62
9744	1/4"	24"	9/32"	29 1/16"	.64

GUIDE FOR SELECTING SCREWDRIVERS

ALL Plastic-Handle and Wood-Handle Screwdrivers, Listed According to Shank Size and Then Blade Length

NO.	SHANK SIZE and SHAPE	BLADE LENGTH	HANDLE MATERIAL	BIT WIDTH or NUMBER	OVERALL LENGTH	TYPE of SCREWDRIVER	WT., LBS.
9622	1/8" Round	2 1/2"	Plastic	1/8"	5 1/4"	Electrical	.04
9822	1/8" Square	2 1/2"	Plastic	1/8"	5 1/4"	General Purpose	.04
9722	1/8" Square	2 1/2"	Wood	1/8"	5 3/4"	Electrical	.06
9624	1/8" Round	4 1/2"	Plastic	1/8"	7 1/4"	Electrical	.06
9724	1/8" Square	4 1/2"	Wood	1/8"	7 3/4"	Electrical	.07
9651	3/16" Square	1"	Plastic	7/32"	2 7/8"	Stubby	.07
9701	3/16" Square	1 1/2"	Wood	7/32"	4 5/16"	Heavy-Duty—Metal Cap	.09
9702	3/16" Square	2 1/2"	Wood	7/32"	6 21/32"	Heavy-Duty—Metal Cap	.15
9782	3/16" Round	3"	Wood	No. 1	6 1/4"	Phillips No. 1 Bit	.07
9682	3/16" Round	3"	Plastic	No. 1	6 3/8"	Phillips No. 1 Bit	.09
9632	3/16" Round	4"	Plastic	3/16"	7 3/8"	Electrical	.10
9832	3/16" Square	4"	Plastic	7/32"	7 3/8"	General Purpose	.11
9732	3/16" Square	4"	Wood	7/32"	8 7/8"	Electrical	.16
9633	3/16" Round	7 1/2"	Plastic	3/16"	10 7/8"	Electrical	.13
9833	3/16" Square	7 1/2"	Plastic	7/32"	10 7/8"	General Purpose	.15
9733	3/16" Square	7 1/2"	Wood	7/32"	12 3/8"	Electrical	.19
9741	3/16" Square	9"	Wood	7/32"	13 5/32"	Cabinet—Long Slim Blade	.21
9638	3/16" Round	13 1/2"	Plastic	3/16"	16 7/8"	Cabinet—Long Slim Blade	.17
9671	1/4" Round	9/16"	Plastic	No. 2	2 7/16"	Stubby—Phillips No. 2 Bit	.07
9652	1/4" Square	1 1/2"	Plastic	9/32"	3 7/8"	Stubby	.12
9604	1/4" Round	4"	Plastic	9/32"	8"	Standard	.17
9804	1/4" Square	4"	Plastic	9/32"	8"	Standard	.19
9704	1/4" Square	4"	Wood	9/32"	9 3/32"	Heavy-Duty—Metal Cap	.29
9684	1/4" Round	4"	Plastic	No. 2	8"	Phillips No. 2 Bit	.17
9784	1/4" Round	4"	Wood	No. 2	8 7/8"	Phillips No. 2 Bit	.18
9693	1/4" Round	5 1/8"	Plastic	5/16"	9 1/8"	Clutch Head (Figure 8)	.19
9694	1/4" Round	5 7/8"	Plastic	3/16"	9 7/8"	Clutch Head (Figure 8)	.20
9642	1/4" Round	9"	Plastic	9/32"	13"	Cabinet—Long Slim Blade	.24
9842	1/4" Square	9"	Plastic	9/32"	13"	Cabinet and General Purpose	.28
9742	1/4" Square	9 1/2"	Wood	9/32"	14 19/32"	Cabinet and General Purpose	.38
9744	1/4" Square	24"	Wood	9/32"	29 1/16"	Long—Reaches Hose Clamps	.64
9752	5/16" Square	11 1/16"	Wood	11/32"	6"	Tappet—Metal Cap	.30
9606	5/16" Round	6"	Plastic	11/32"	10 3/8"	Standard	.30
9806	5/16" Square	6"	Plastic	11/32"	10 3/8"	Standard	.36
9706	5/16" Square	6"	Wood	11/32"	12 3/16"	Heavy-Duty—Metal Cap	.51
9686	5/16" Round	6"	Plastic	No. 3	10 3/8"	Phillips No. 3 Bit	.30
9786	5/16" Round	6"	Wood	No. 3	11 7/8"	Phillips No. 3 Bit	.34
9695	5/16" Round	6 1/8"	Plastic	1/4"	10 1/2"	Clutch Head (Figure 8)	.32
9643	5/16" Round	10"	Plastic	11/32"	14 3/8"	Cabinet—Long Slim Blade	.39
9843	5/16" Square	10"	Plastic	11/32"	14 3/8"	Cabinet and General Purpose	.45
9743	5/16" Square	10"	Wood	11/32"	16 3/16"	Cabinet and General Purpose	.62
9696	3/8" Round	6 1/8"	Plastic	5/16"	11 1/8"	Clutch Head (Figure 8)	.38
9608	3/8" Round	8"	Plastic	13/32"	13"	Standard	.47
9808	3/8" Square	8"	Plastic	13/32"	13"	Standard	.55
9708	3/8" Square	8"	Wood	13/32"	14 13/16"	Heavy-Duty—Metal Cap	.78
9688	3/8" Round	8"	Plastic	No. 4	13"	Phillips No. 4 Bit	.48
9788	3/8" Round	8"	Wood	No. 4	14 1/2"	Phillips No. 4 Bit	.52
9710	3/8" Square	10"	Wood	13/32"	16 13/16"	Heavy-Duty—Metal Cap	.87
9712	3/8" Square	12"	Wood	13/32"	18 13/16"	Heavy-Duty—Metal Cap	.97
9714	7/16" Square	14"	Wood	9/16"	22 11/16"	Heavy-Duty—Metal Cap	1.55

PROTO TOOLS LOS ANGELES

"BET'R-GRIP"® SPECIAL SCREWDRIVERS

® Registered U. S. Pat. Off.

Blades of all special screwdrivers are alloy steel.

Phillips Screwdrivers

Drive the full range of Phillips cross-slotted screws.

NO.	PHILLIPS BIT NO.	SHANK DIAM.	BLADE LENGTH	OVERALL LENGTH	WT., LBS.
Plastic-Handle Screwdrivers					
9682	1	3/16"	3"	6 3/8"	.09
9684	2	1/4"	4"	8"	.17
9686	3	5/16"	6"	10 3/8"	.30
9688	4	3/8"	8"	13"	.48
• 9671	2	1/4"	3/16"	2 7/16"	.07
Wood-Handle Screwdrivers					
9782	1	3/16"	3"	6 1/4"	.07
9784	2	1/4"	4"	8 7/8"	.18
9786	3	5/16"	6"	11 7/8"	.34
9788	4	3/8"	8"	14 1/2"	.52

• Stubby Type—For Restricted Clearance Work.

Clutch Head (Fig. 8 or Butterfly) Screwdrivers

Bits are Type G design, preferred in service work.

NO.	BIT SIZE	NOS. OF SCREWS ACCOMMODATED				BLADE LGTH.	OVER. LGTH.	WT., LBS.
		ALL HDS.	FLAT, OVAL	PAN	FILL.			
9693	5/32"	8	6 †	6, 10	10	5 1/8"	9 1/8"	.19
9694	3/16"	....	10 ‡	12	12	5 7/8"	9 7/8"	.20
9695	1/4"	14, 1/4"	12	....	....	6 1/8"	10 1/2"	.32
9696	5/16"	5/16"	5/16"‡	3/8"	3/8"	6 1/8"	11 1/8"	.38

†Also #10 Hexagon. ‡Also #10 Truss & #12 Binding. ‡Also 3/8" Truss, Hex. & Binding.

Offset Screwdrivers

For drag link and brake adjustments, and work in close places. Bits at right angles to each other.

NO.	BIT WIDTH	LENGTH	WT., LBS.	NO.	BIT WIDTH	LENGTH	WT., LBS.
35 1/4	1/4"	3"	.05	36 5/16	5/16"	5"	.11
36 1/4	1/4"	4 3/4"	.07	36 3/8	3/8"	6 1/8"	.19

No. 9752 Tappet Wood-Handle Screwdriver

Short and strong. Fine for tappet work and many other jobs. Shank, 5/16" sq. Blade length, 1 11/16". Bit width, 11/32". Overall length, 5 3/4". Weight, .30 Lb.

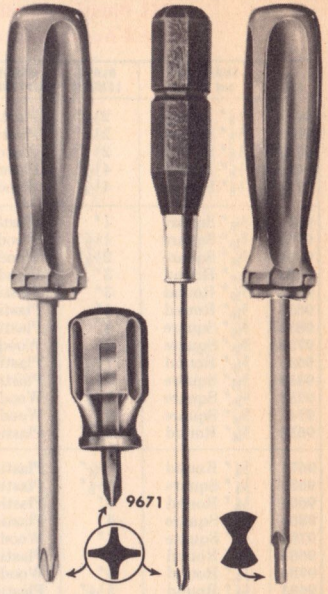
Stubby Plastic-Handle Screwdrivers

Necessary where long handles prevent free turning.

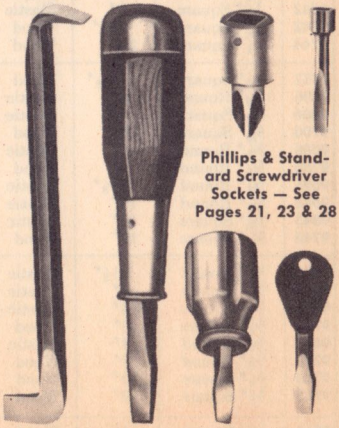
NO.	SHANK SIZE AND SHAPE	BLADE LENGTH	BIT WIDTH	OVERALL LENGTH	WT., LBS.
9651	3/16" Square	1"	7/32"	2 7/8"	.07
9652	1/4" Square	1 1/2"	9/32"	3 7/8"	.12

No. 100 Key Ring Screwdriver

The perfect gift. Has hundreds of uses. Bit width, 3/16". Length, 2 1/4". Weight, .015 Lb.



9682-9688 9782-9788 9693-9696

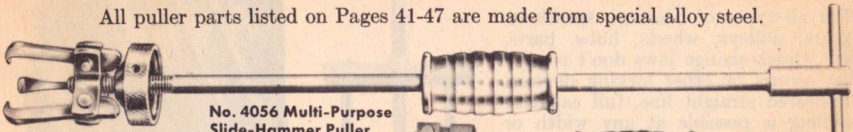


Phillips & Standard Screwdriver Sockets — See Pages 21, 23 & 28

35 1/4-36 3/8 9752 9651-9652 100

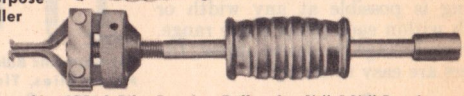
SLIDE-HAMMER PULLERS

All puller parts listed on Pages 41-47 are made from special alloy steel.

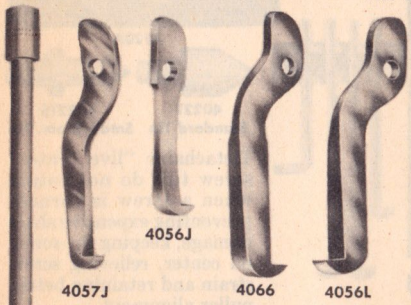


No. 4056 Multi-Purpose Slide-Hammer Puller

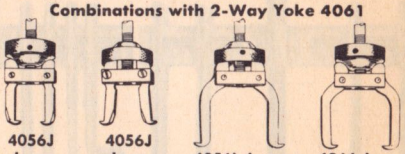
Set 4056 removes bearing cups, sleeves, retainers, axles, etc. For contents of sets, see table below.



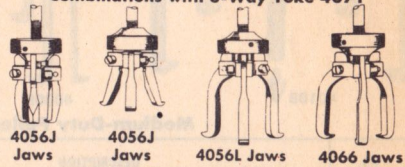
No. 4056A Pilot Bearing Puller, for ⅝"-1¾" Bearings

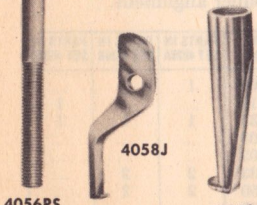


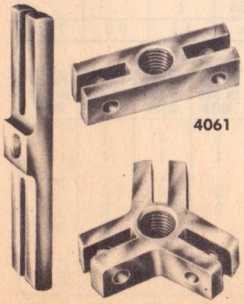
Combinations with 2-Way Yoke 4061



Combinations with 3-Way Yoke 4071







Slide-Hammer Puller Parts and Sets

NO.	DESCRIPTION	WT., LBS.	SET 4056 PARTS	SET 4056A PARTS
†4056R	T-Handled Rod, 24" Long	1.90	1	....
4056RS	Short Rod, 12⅜" Long, for Use in Close Places and Suited for Assembling Valve or Blind Bearing Puller	.96	....	1
†4056H	Sliding Hammer with Fluted Grip	2.7	1	1
†4056N	Knurled Reversible Adjusting Nut, 2½" Dia.	.75	1	1
4063	Knurled Non-Reversible Adjusting Nut, 1¾" Dia. (Shown on No. 4060A Set—Page 43)	.28	....	....
4061	Yoke, 2½" Wide, for Holding Two Jaws	.23	....	1
4071	Yoke, 2½" Diameter, for Holding Three Jaws	.32	1	....
†4056PN	Pin for Holding Jaw in Yoke	.03	3	2
4056J	Reversible Jaw, 3½" Long	.11	3	....
4056L	Inside Jaw, 4½" Long	.21	....	....
4057J	Long Reversible Jaw, 4⅝" Long	.18	....	....
4058J	Inside Jaw, 3$^{29}/_{32}$" Long, for Pilot Bearings	.10	....	2
4066	Outside Jaw, 4$^{9}/_{16}$" Long	.21	....	....
4056S	Single Jaw, 2$^{15}/_{16}$" Long, for Wheel Alignment, Brake Work, and Pulling Grease Retainers, Small-Diameter Bearings, Bushings, etc.	.17	....	....
4056C	Deep-Slotted Cap Screw Crossarm, 6" Wide, for Pulling Gears, etc., with Cap Screws	1.10	....	....
†Shown in Illustration at Top of Page.		Set Weight, Lbs.	6.5	4.9

PROTO TOOLS
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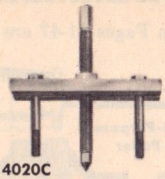
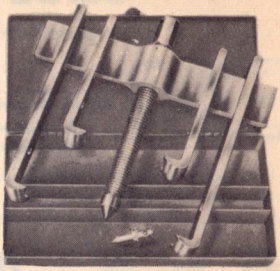
MEDIUM AND HEAVY-DUTY PULLERS

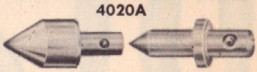
For all types of bearings, sprockets, gears, pulleys, wheels, hubs, parts, etc. Quick-change jaws don't require set screws or other locking devices. Preferred straight line, full capacity pulling is possible at any width or depth within each puller's size range. With no linkage or pins to adjust, the pullers are easy to set up.



4020C
For Harmonic Balancer Assemblies, Timing Gears, etc.

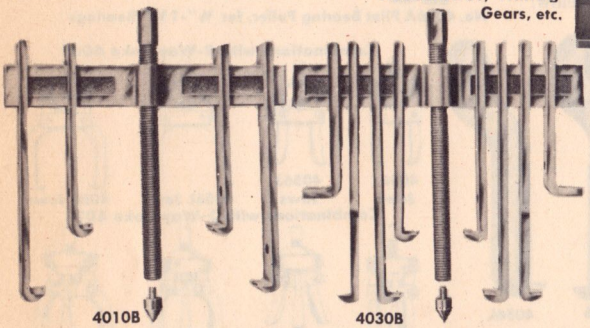


4020A



4022T Standard Tip — 4022TS Small-Diam. Tip

Detachable "live center" screw tips do not rotate when a screw is turned, preventing expensive shaft damage, keeping the screw on center, relieving screw strain and retaining better puller alignment.



4010B 4030B

Medium-Duty Puller Parts and Sets

NO.	DESCRIPTION	WT., LBS.	PARTS IN SET 4020A	PARTS IN SET 4020B	PARTS IN SET 4020C
4021	Crossarm, 7″ Long	1.00	1	1	....
4056C	Cap Screw Crossarm, 6″ Wide	1.10	....	....	1
4022	Screw, 6¾″ Long, ½″ Hex. Head, with 4022T & 4022TS Tips	.35	1	1	1
4022T	Standard Detachable Tip for 4022 Screw, 60° Taper	.03	....	....	....
4022TS	Small Detachable Tip for 4022 Screw, ¼″ Diameter	.02	....	....	....
†4025	Jaw, 2″ from Crossarm to Hook	.33	2	2	....
†4026	Jaw, 4″ from Crossarm to Hook	.50	2	2	....
4027	Narrow Jaw, 4″ from Crossarm to Hook	.35	....	....	....
4028	Cap Screw, Case Hardened, 3″ Long	.10	....	....	2
4029	Steel Box, 1½″x3¾″x7½″	1.05	1	....	....
	Set Weight, Lbs.		4.1	3.2	1.76

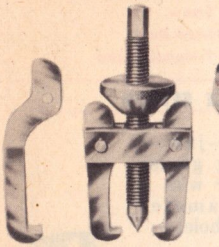
Heavy-Duty Puller Parts and Sets

NO.	DESCRIPTION	WT., LBS.	PARTS IN SET 4010B	PARTS IN SET 4010C	PARTS IN SET 4030A	PARTS IN SET 4030B
4011	Crossarm, 11″ Long	2.7	1	1	1	1
4012	Screw, 11½″ Long, ⅝″ Hexagon Head, with 4012T Tip	1.21	1	1	1	1
4012T	Standard Detachable Tip for 4012 Screw, 60° Taper	.06	....	....	....	....
†4015	Jaw, 4¾″ from Crossarm to Hook	.94	2	2	2	2
†4016	Jaw, 7 3/16″ from Crossarm to Hook	1.26	2	....	2	2
4017	Timing Gear Jaw, 7 3/16″ from Crossarm to Hook	1.14	....	....	2	2
†4018	Cap Screw Jaw, 3″ from Crossarm to Hook	.88	....	2	2	2
4019	Steel Box, 1¾″x5½″x12″	2.1	....	....	1	....
	Set Weight, Lbs.		8.5	7.7	14.4	12.6

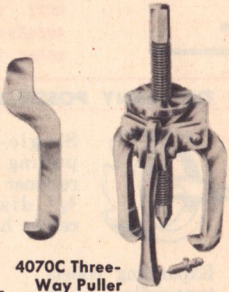
†Has Extra Hole Near Hook for Bolting Jaws Together. Saves Buying Expensive Long-Reach Jaws.

LIGHT-DUTY PULLERS

All puller parts listed on Pages 41-47 are made from special alloy steel.



4060A Two-Way Puller



4070C Three-Way Puller

These small pullers are designed to pull little gears, pulleys, bearings, etc., quickly and easily. The narrow jaws get into very close places. Adjusting nut No. 4063 holds the jaws firmly in position so they can't slip. If adjusting nut No. 4056N is substituted, the short jaws can be reversed and used for inside pulling. Any ½" opening wrench can be used on the screw's hex head. The short jaws have a range from 0" to 1½", and the long jaws from 0" to 3".

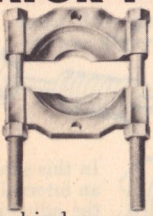
The parts included in the No. 4060A two-way puller and the No. 4070C three-way puller are shown in the two right columns of the table below.

Light-Duty Puller Parts and Sets

NO.	DESCRIPTION	WEIGHT, LBS.	PARTS IN SET 4060A	PARTS IN SET 4070C
4022	Screw, 6¾" Long, ½" Hex. Head, with 4022T & 4022TS Tips	.35	1	1
4022T	Standard Detachable Tip for 4022 Screw, 60° Taper	.03	....	....
4022TS	Small Detachable Tip for 4022 Screw, ¼" Diameter	.02	....	....
4063	Knurled Non-Reversible Adjusting Nut, 1¾" Diameter	.28	1	1
4056N	Knurled Reversible Adjusting Nut, 2½" Diameter	.75	....	....
4061	Yoke, 2½" Wide, for Holding Two Jaws	.23	1	....
4071	Yoke, 2½" Diameter, for Holding Three Jaws	.32	....	1
4056PN	Pin for Holding Jaw in Yoke, Held in Place by Ball Check	.03	2	3
4056J	Reversible Jaw, 3½" Long, 0" to 1½" Range	.11	2	....
4066	Outside Jaw, 4 9/16" Long, 0" to 3" Range	.21	2	3
	Set Weight, Lbs.		1.75	1.94

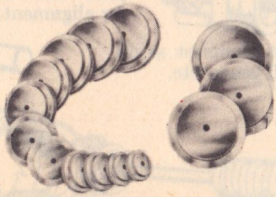
SEPARATOR-PULLER AND STEP PLATES

No. 4032 Bearing Separator and Puller Attachment



Flat surfaces and knife-like edges permit adjustment behind many gears, bearings, etc., where space is too limited for heavy puller hooks. Protects expensive bearings. Width, 5 13/16". Maximum opening, 4½". Wt., 4.4 Lbs. Parts: Top Plate—4032A. Bottom Plate—4032B. Bolt and Nut—4032S.

Step Plate Adapters



Used on hollow shafting or housings as a base for a puller screw when forcing off bushings, gears, etc. Also useful for installing oil seals. Eleven sizes at left above comprise Set No. 4040.

NO.	SMALL DIAM.	LARGE DIAM.	WT., LBS.
4040-1	¾"	1"	.05
4040-2	7/8"	1 1/8"	.08
4040-3	1"	1¼"	.10
4040-4	1 1/8"	1 3/8"	.13
4040-5	1¼"	1 5/8"	.19
4040-6	1 3/8"	1¾"	.22
4040-7	1½"	1 7/8"	.28
4040-8	1 5/8"	2"	.33
4040-9	1¾"	2 1/8"	.40
4040-10	1 7/8"	2 3/8"	.49
4040-11	2"	2½"	.59
4040-12	2 1/8"	2 5/8"	.65
4040-13	2¼"	2¾"	.76
4040-14	2 3/8"	2 7/8"	.83

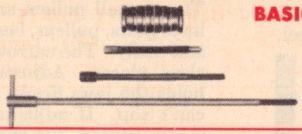
No. 4040 Set

Eleven Step Plates, 4040-1 to 4040-11. Wt., 3.0 Lbs.

PROTO TOOLS
REG. U.S. PAT. OFF. LOS ANGELES MADE IN U.S.A.

MORE PULLER SETUPS FROM FEWER PARTS

INTER-CHANGEABLE ATTACHMENTS

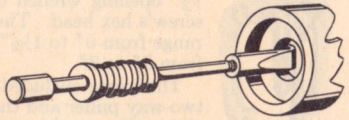


BASIC PARTS

- 4056H Slide Hammer
- 4022 Screw
- 4056RS Short Rod
- 4056R T-Handled Rod

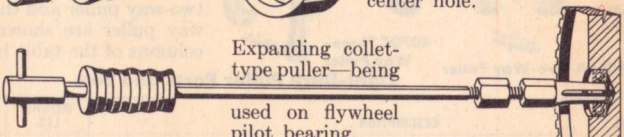
A FEW OF THE MANY POSSIBLE SETUPS

4056S Single Jaw Puller



Single-jaw—pulling grease retainer with a ¾" diameter center hole.

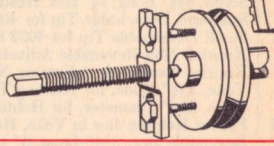
4080 Blind Bearing Puller



Expanding collet-type puller—being used on flywheel pilot bearing.

4056C Cap Screw Crossarm

Slotted-type crossarm—removing harmonic balancer or vibration dampener, drilled and tapped for cap screw pulling.

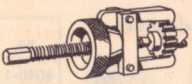


INTER-CHANGEABLE ATTACHMENTS

ADDITIONAL BASIC PARTS

- 4056PN Jaw Pins
- 4056N Adjusting Nut
- 4061 2-Way Yoke
- 4071 3-Way Yoke

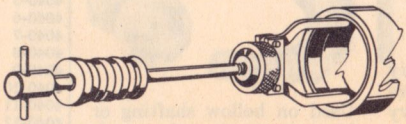
4056J Reversible Jaws



Internal pulling with three jaws—more strength and better alignment.

Quickest, simplest setup for small gears, etc.

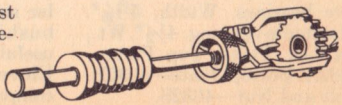
4056L Inside Jaws



In this setup for pulling an internal bearing cup, the adjusting nut locks the jaws in their expanded position.

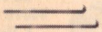
4066 Outside Jaws

On hollow shafts, where thrust screws can't be used, the slide-hammer puller is ideal. If clearance is restricted, the short rod may be used.

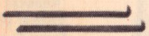


BETTER WORK COVERAGE AT LOWER COST

INTER-CHANGEABLE HEAVY-DUTY ATTACHMENTS

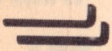


4015
Short Jaws



4016
Long Jaws

4017
Narrow Jaws

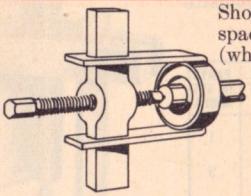


4018
Cap Screw Jaws

BASIC HEAVY-DUTY PARTS

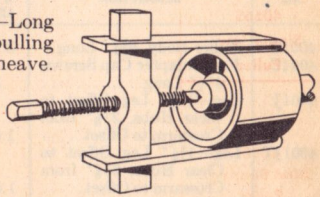
4011 Crossarm
4012 Screw

A FEW OF THE MANY POSSIBLE SETUPS

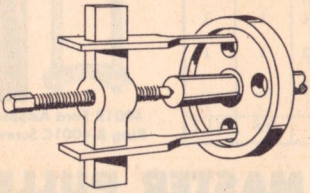


Short jaws are required where clearance and space are limited. Striking the screw head (when under tension) increases capacity and reduces possibility of damaging parts.

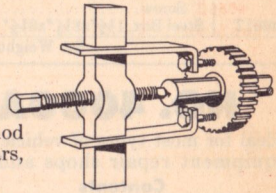
Right—Long jaws pulling wide sheave.



All jaws shown on this page allow a straight, solid pull in their respective ranges.

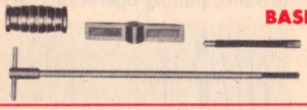


Left—Many large wheels, gears, etc., have cut-out sections for the insertion of narrow jaws.



Right—Another cap screw pulling method that may be applied to pulleys, gears, harmonic balancers and other parts.

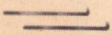
MEDIUM-DUTY



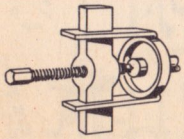
BASIC MEDIUM-DUTY PARTS

4056H Slide Hammer
4021 Crossarm
4022 Screw
4056R T-Handled Rod

4025
Short Jaws

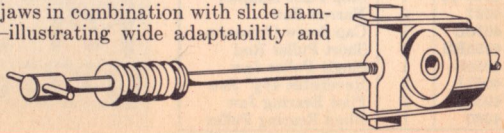


4026
Long Jaws



Common setup for outside pulling of gears, pulleys and bearings on motors, generators, refrigerator compressors, household appliances, hydraulic equipment, etc. Jaws may be reversed for inside pulling.

Crossarm and jaws in combination with slide hammer and rod—illustrating wide adaptability and interchangeability of puller parts.



PROTO TOOLS
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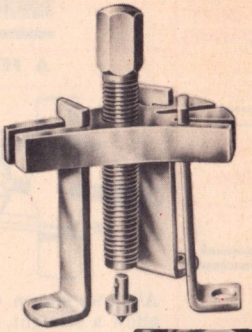
UNIVERSAL WHEEL HUB PULLER

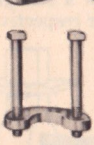
This puller is the simplest and fastest made for hubs and many other pulling requirements. It pulls hubs of most light trucks and cars, including Ford (by using adapter shown). The No. 4001J legs are drilled for 9/16" studs and are quickly adjustable to any drum with 3, 4, 5, 6 or 7 studs in a circle up to 6½"-diameter. The No. 4001JT legs accommodate larger ¾" studs and are adjustable on drums in a circle up to 8".

Wheel Hub Puller Parts and Sets

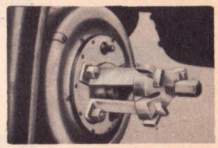
NO.	DESCRIPTION	WT., LBS.	PARTS IN SET 4001	PARTS IN SET 4001A
4001B	Puller Body, 6¾" Long..	3.6	1	1
4001C	Ford Adapter Cap Screws, 4½" Long.....	.38	2	2
4001J	Leg—1 9/16" Leg Offset to Clear Hubs, 3⅞" from Crossarm to Offset.....	1.00	3	3
4001JT	Leg—1¾" Leg Offset to Clear Hubs, 3⅞" from Crossarm to Offset.....	1.00	....	....
4001R	Ford Adapter Ring.....	.64	1	1
4001S	1" Puller Screw, 8" Long, with 4001ST Tip.....	1.43	1	1
4001ST	Detachable Tip for 4001S Screw.....	.06	....	....
4001T	Steel Box, 1½"x8¼"x8½"	2.2	....	1
	Set Weight, Lbs.		9.8	11.7



Assembly of 4001S Screw, 4001B Body & Three 4001J Legs. Detachable Tip Keeps Screw on Center & Reduces Danger of Spreading or Splitting of Axles.



4001R Ford Adapter Ring & 4001C Screws



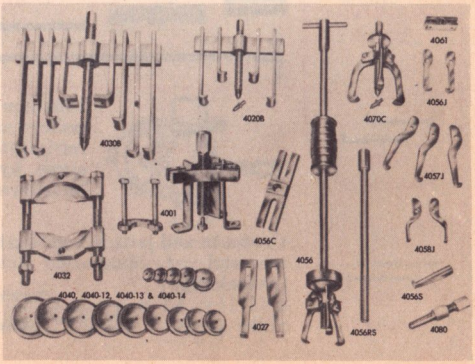
Pulling a Ford V8 Wheel Hub

NO. 4000AB MASTER PULLER SET

Ideal for most types of vehicle and equipment repair shops and for maintenance departments in many industries. Makes an extremely large number of puller set-ups, due to parts interchangeability, and handles hundreds of pulling operations. Weight, 52 Lbs.

Contents

NO.	QUANTITY	DESCRIPTION
4030B	1	Heavy-Duty Puller
4020B	1	Medium-Duty Puller
4056	1	Slide-Hammer Puller
4070C	1	Light-Duty Puller
4056J	2	Reversible 3½" Jaw
4061	1	Yoke for Two Jaws
4001	1	Universal Wheel Puller
4032	1	Bearing Separator
4040	1	Step Plate Adapter Set
4040-12	1	Step Plate Adapter
4040-13	1	Step Plate Adapter
4040-14	1	Step Plate Adapter
4027	2	Narrow Jaw
4056C	1	Cap Screw Crossarm
4056RS	1	Short Puller Rod
4056S	1	Single Puller Jaw
4057J	3	Reversible 4⅝" Jaw
4058J	2	Pilot Bearing Jaw
4080	1	Blind Bearing Puller



SPECIAL-PURPOSE PULLERS

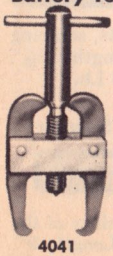
Stud Removers and Setters

4515 & 4532

Wedge type stud removers and setters—adaptable to both power and hand tool use—have been proved in service to be far superior to the eccentric roller type. They give long service, handle very short studs (¾" for the No. 4515), and have a small turning radius which clears many obstructions that would block operation of other types. The tapered, deeply-serrated wedges grip tighter as pressure is applied and take a firm hold on stubborn studs. Each unit has two wedges to increase the usable range. A spring-tensioned pin holds the wedges in the body when not in use. No. 4515 is 1 3/16" in diameter and 3½" long. No. 4532 is 2" in diameter and 5⅛" long.

STANDARD ½" SQUARE DRIVE			
NO.	DESCRIPTION	FOR STUDS	WT., LBS.
4515	Stud Remover	¼"-⅝"	.78
4516	Thick Wedge Only	¼"-7/16"	.07
4517	Thin Wedge Only	½"-⅝"	.04
HEAVY-DUTY ¾" SQUARE DRIVE			
4532	Stud Remover	⅝"-1"	3.4
4533	Thick Wedge Only	⅝"-¾"	.34
4534	Thin Wedge Only	¾"-1"	.18

Battery Terminal and Bearing Pullers



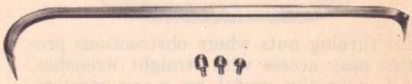
4041
Wt., .65 Lb.

Remove terminals quickly and easily, without damaging posts. No. 4041, a conventional type, can be used for small bearings and other jobs. No. 4042, an unusual type, costs less and is faster to set up and use.

4042
Wt., .44 Lb.

All puller parts listed on Pages 41-47 are made from special alloy steel.

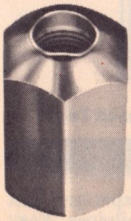
No. 4050 Pinion Puller Bar



Designed for speedy removal of pinion assembly on GM cars with enclosed drive shaft, but can be used for many other pulling and prying jobs. Three sizes of fulcrum plugs are provided, thus eliminating any leverage problems. A solid tool, easy and safe to use. Length, 31¼". Weight, 5.5 Lbs. Parts: Bar Only—4050B. Large Fulcrum Plug—4050L. Medium Plug—4050M. Small Plug—4050S.

No. 4080 Blind Bearing Puller

A simple, efficient collet-type puller for pulling Chevrolet, Ford and Packard pilot bearings quickly and without damage. Turning the screw expands outer shoulder and grips bearing. Has an exceptional range of expansion and therefore has many uses. Can be used alone or with a No. 4056 slide-hammer puller. Length, 4½". Weight, .34 Lb. Parts: Body—4080B. Screw—4080S.

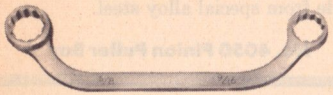


No. 4082 Wheel Bolt Inserter and Peener

For installing new wheel attaching bolts in rear axle flanges of Chevrolets. With this tool you can replace a bolt in 1/6th the usual time because it makes removal of rear axle and other parts unnecessary. Screwing tool onto a new bolt with countersunk end toward flange pulls bolt tightly into position. Eccentric end peens shoulder of bolt into space provided on flange. Length, 1⅜". Weight, .17 Lb.

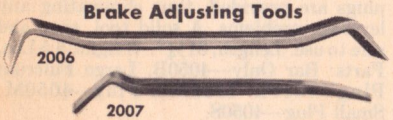
SPECIAL-PURPOSE TOOLS

No. 1730 Obstruction Box Wrench



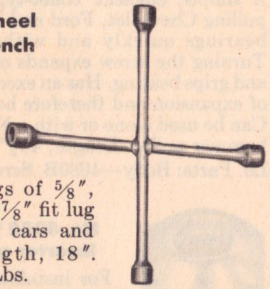
For turning nuts where obstructions prevent easy access with straight wrenches, and especially useful on many starters. Clearance at middle, 1″. Openings, 12-point, 9/16″x5/8″. Length, 6 21/32″. Alloy steel. Weight, .20 Lb. More sizes on Page 11.

Brake Adjusting Tools



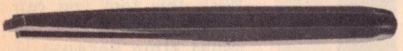
No. 2006 adjusts star nuts on two-shoe Bendix brakes. It is 8 1/2″ long, has 1 5/8″ spoons and weighs .30 Lb. No. 2007 is for Chevrolet brakes and other close places. It is 6 15/16″ long, has 1 3/16″ and 1 7/16″ spoons and weighs .18 Lb. Both are alloy steel.

No. 2151 Wheel Lug Nut Wrench



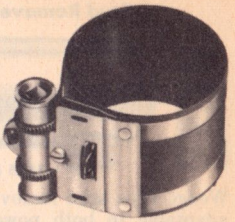
A speedy, four-way rim wrench, forged from alloy steel. Hex openings of 5/8″, 3/4″, 13/16″ and 7/8″ fit lug nuts of most cars and trucks. Length, 18″. Weight, 3.0 Lbs.

No. 2301 Muffler Removal Tool



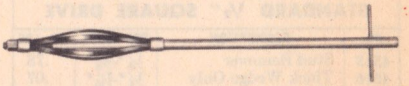
A practical, simple and inexpensive tool for removing mufflers and tailpipes. Easy and safe to use. Makes quick work of taking off worn-out mufflers that are corroded, burned and hard to reach. Prevents damage to usable parts. Forged from special alloy steel. Length, 6 1/8″. Weight, .29 Lb.

No. 2316 Piston Ring Compressor



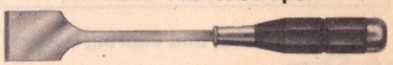
Sturdy, ratchet-type—noted for easy, trouble-free operation. Wide band (3 1/2″) completely encircles the rings, expands to 5″, contracts to 2 3/16″, and has corrugated edge. Two narrow bands take strain. Bottom band prevents flaring and possible ring breakage as rings leave compressor. Dual ratchets synchronize operation of bands, prevent band breakage and eliminate slippage. Diameter is compressed .003″ per tooth. A simple trigger device positively locks or releases ratchets and bands. Spindle has 1/4″ square opening and is turned by an ell handle, furnished with each compressor. Weight, .85 Lb.

No. 2335 Valve Guide Cleaner



Turning a nut adjusts the five flexible blades to any valve guide size. Length, 9 3/4″. Weight, .10 Lb. Extra blade—2335B.

No. 2336 Gasket Scraper



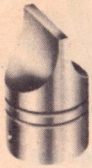
For removing shellacked gaskets, scraping carbon and many other uses. Length, 11 7/32″. Blade width, 1 1/2″. Weight, .39 Lb.

No. 2337 Flexible Carbon Scraper

Sliding band regulates the flexibility of the ten round spring steel blades. Length, 9″. Width, 1″. Weight, .30 Lb.

SPECIAL-PURPOSE TOOLS

Heavy-Duty Screwdriver Sockets



For drag links and screw adjustments on steering assemblies, shock absorbers, starters, etc. Other types—Pages 21 and 23.

NO.	DRIVE	BIT SIZE	LGTH.	LBS.
5244	3/8"	5/8"x.116"	1 1/4"	.08
5444	1/2"	3/4"x.115"	1 9/16"	.14
5446	1/2"	15/16"x.154"	1 9/16"	.20

Connecting Rod Sockets

Thin nose, hexagon, 1/2" drive sockets. No. 6523 is for Ford V8 con. rod nuts. No. 6522 is for La Salles and Cadillacs.

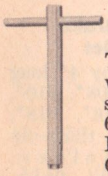
6522 6523

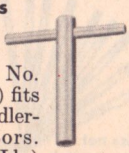
NO.	OPENING	LENGTH	WT., LBS.
6522	7/16"	1 5/8"	.13
6523	9/16"	1 5/16"	.11

No. 6525 Cylinder Head T-Handle

Speeds turning of V-type engine head nuts with 1/2" drive sockets. Weight, 3.9 Lbs. Parts: Extension, 30" Long, of 5/8" Non-Twisting Stock—6525E. Pin Handle, 18" Long, 9/16" Stock—6525P.

Carburetor Jet Wrenches





Turn jets quickly, without damaging soft jet material. No. 6526 (Wt., .07 Lb.) fits Holley and Chandler-Groves carburetors. No. 6528 (Wt., .06 Lb.) fits nearly all Stromberg carburetors.

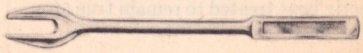
6526 6528

No. 6539 Ford V8-85 Valve Lifter

Long leverage breaks loose the toughest guides. Push guide down to remove keeper, and then pry to force out the guide. Stock, 3/4". Length, 30". Weight, 3.5 Lbs.

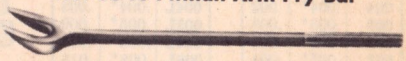
The screwdriver of Valve Adjuster No. 6734 and all other tools on this page are made from PROTO-specified alloy steels.

No. 6545 Ford Drag Link and Shock Arm Tool



A real time saver—better known as the "pickle fork." Tapered fork of slim design is readily inserted to separate shock links and tie rods. Length, 16". Fork opening, 21/32". Weight, 2.3 Lbs.

No. 6546 Pitman Arm Pry Bar



Eliminates need for expensive pullers to remove Pitman arms from steering assemblies. Equally useful for removing gears, bearings and pulleys, and for lifting cylinder head blocks and heavy assemblies. Length, 20". Fork opening, 1 1/8". Weight, 2.8 Lbs.

No. 6601 Starter Wrench

For Plymouth, Dodge, De Soto and Chrysler cars. Clears objects when removing or replacing starter. Has 5/8" box opening. Length, 9 3/4". Weight, .35 Lb.

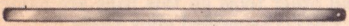
No. 6734 Valve Adjuster

For accuracy, speed and ease when adjusting overhead valves. Using a 1/2" drive socket wrench, first loosen lock nut. Then operate screwdriver for adjustment, setting valve clearance with feeler gauges. Also used with clutch adjusting machines. Weight, .33 Lb. Extra Screwdriver Blade with Knob—6734S.

PROTO TOOLS LOS ANGELES

FEELER GAUGES AND GAUGE SETS

Standard Feeler Gauges



Of superior quality, these thickness gauges are accurately ground and correctly heat treated to remain true after long use.

Short Blades

½" Wide, 3¼" Long

NO.	THICKNESS	WT., LB.
0015	.0015"	.001
002	.002"	.001
003	.003"	.002
004	.004"	.002
005	.005"	.003
006	.006"	.003
007	.007"	.004
008	.008"	.004
009	.009"	.004
010	.010"	.005
011	.011"	.005
012	.012"	.005
013	.013"	.006
014	.014"	.006
015	.015"	.007
016	.016"	.008
017	.017"	.008
018	.018"	.009
020	.020"	.010
022	.022"	.011
025	.025"	.012
030	.030"	.013
032	.032"	.015
035	.035"	.016
040	.040"	.018

Long Blades

½" Wide, 12" Long

NO.	THICKNESS	WT., LB.
0015L	.0015"	.002
002L	.002"	.004
003L	.003"	.006
004L	.004"	.008
005L	.005"	.009
006L	.006"	.012
008L	.008"	.016
010L	.010"	.019
012L	.012"	.021
013L	.013"	.023
015L	.015"	.027
017L	.017"	.028
018L	.018"	.030

No. 000C Feeler Gauge Holder

For 3¼" feeler blades. Holds all available sizes. Weight, .05 Lb.

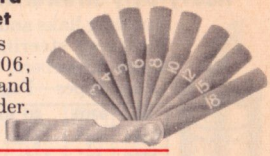
Step-Cut Feeler Gauges

"Go and no-go" type, each blade having two different thicknesses. Width, ½". Length, 3¼".

NO.	THICKNESSES	WT., LB.
004/6	.004" & .006"	.002
005/7	.005" & .007"	.003
006/8	.006" & .008"	.003
007/9	.007" & .009"	.004
008/10	.008" & .010"	.004
009/11	.009" & .011"	.004
010/12	.010" & .012"	.006
011/13	.011" & .013"	.007

No. 000A Standard Feeler Gauge Set

Nine short blades 003, 004, 005, 006, 008, 010, 012, 015 and 018—in 000C holder. Wt., .10 Lb.



No. 000AA Standard Feeler Gauge Set

A master set, with all 25 short blades—0015 through 040—in 000C holder. Wt., .20 Lb.

No. 000B Step-Cut Gauge Set

Four gauges—004/6, 006/8, 008/10 and 010/12—in 000C holder. Wt., .06 Lb.

No. 000BB Step-Cut Gauge Set

Master set, with eight gauges—004/6 through 011/13—in 000C holder. Wt., .08 Lb.

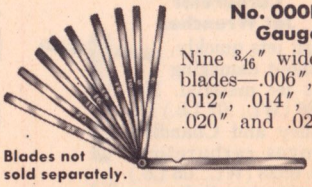
No. 000D Ignition Gauge Set

Ten 3/16" wide by 1½" long blades—.011", .012", .014", .018", .020", .022", .025", .028", .032" and .035" thick—in holder. Wt., .03 Lb.

Blades not sold separately.

No. 000E Brake Gauge Set

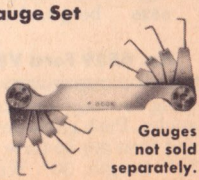
Nine 3/16" wide by 4" long blades—.006", .008", .010", .012", .014", .016", .018", .020" and .025" thick—in holder. Wt., .04 Lb.



Blades not sold separately.

No. 000K Spark Plug Gauge Set

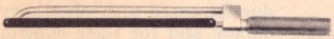
For checking spark plug gaps. Eight bent-wire gauges — .022", .025", .027", .028", .030", .032", .035" and .040" thick—in holder. Wt., .06 Lb.



Gauges not sold separately.

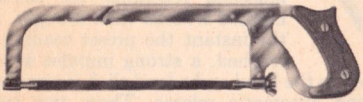
HACKSAWS, BARS AND BENDING TOOL

No. 344 Low-Clearance Hacksaw



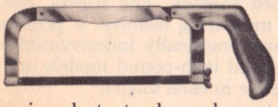
All metal. For use where high frame won't work. Takes 10″ blades. Weight, .88 Lb.

No. 352 Adjustable Hacksaw



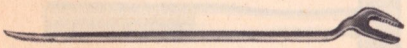
A heavy-duty polished and plated frame with many fine features. Pistol-grip handle, of durable red plastic, is at an angle and shaped to fit the hand. Takes 8″, 10″ or 12″ blades, which can be set in four different positions. Weight, 1.62 Lbs.

No. 360 Adjustable Hacksaw



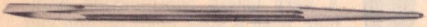
Inexpensive, but sturdy and serviceable. Pistol grip handle. Weight, 1.20 Lbs.

No. 2110 Grease and Utility Bar



For lube work, but fine for pulling up floors and other jobs. Offset wrench-like opening clears objects. Teeth prevent slipping. Forged from PROTO-specified alloy steel. Length, 28″. Weight, 3.4 Lbs.

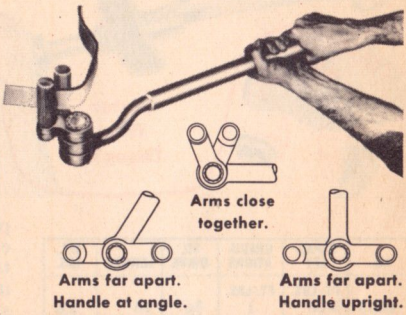
Conventional-Type Pry Bars



For countless prying and aligning jobs. Forged from special alloy steel and correctly heat treated for extra strength.

NO.	STOCK	LENGTH	WT., LBS.
2116	½″ Octagon	16″	.72
2120	⅝″ Octagon	18″	1.20
2124	¾″ Octagon	24″	2.4

No. 2135 Adjustable Bending Tool



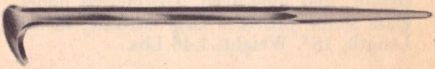
Adjustable to over 100 positions, this efficient bending bar has a multitude of uses. It handles many otherwise difficult jobs because it operates with small handle swing, and it saves buying the assortment of solid bars used in shops.

It is ideal for bending and aligning bumper brackets, frame horns, pillars, rods, front ends and steering parts. In automotive work it is used for spreading springs, straightening steering arms and tie rods, aligning parts, and lifting heavy assemblies. In farm implement repair it is useful for holding, aligning and shaping of tool bar standards, brackets, and harrow and cultivator frames.

Length, 36″. Weight, 14 Lbs. Parts: Body Only — 2135B. Handle — 2135H. Lower Arm—2135L. Upper Arm—2135S.

Body and both arms are of alloy steel.

Rolling Head Bars

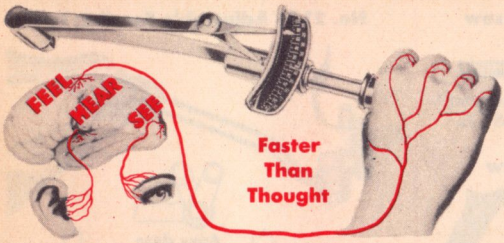


New type gear bar, with 90° rolling head. One of the handiest types of bars you can own, having a great many uses. Especially valuable for getting into close places, such as behind gears. Forged from alloy steel.

NO.	STOCK	LENGTH	WT., LBS.
2126	½″ Octagon	16″	.86
2130	⅝″ Octagon	18″	1.62

PROTO TOOLS
LOS ANGELES

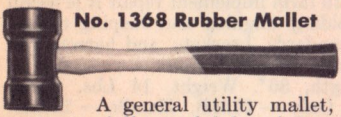
REFLEX-TYPE TORQUE WRENCHES



PROTO flat beam reflex torque wrenches are noted for their production speed with laboratory accuracy and for their control by THREE senses—feeling, sound and sight. By employing the nerve system and its instantaneous, automatic (involuntary) reflex muscular reactions, the control method is faster than thought. At the instant the preset reading is reached, a strong impulse is imparted to the hand and a loud click is sounded, causing automatic release. These two controls, plus an easy-to-read dial, permit work in noisy places, in blind spots, in bad light and under other adverse conditions. Reflex torque wrenches speed factory production, inspection, lab tests and repairs to cars, trucks, tractors, etc. Because of their accuracy, they also eliminate dangerous strains, breakage, binding, loosening, chatter, leakage, squeaks and stripped threads. The sturdy, one-piece flat beam measuring element is permanently accurate and practically indestructible. Both foot-pound and inch-pound models are available—six sizes in each model.

NO.	CAPACITY	GRADUATIONS	SQ. DRIVE	LENGTH	WT., LBS.
	FT.-LBS.	FT.-LBS.			
6025	0-25	1	3/8"	16"	2.6
6050	0-50	2 1/2	1/2"	16"	2.7
6100	0-100	5	1/2"	17 1/2"	2.9
6150	0-150	5	1/2"	20 1/2"	3.6
6200	0-200	5	3/4"	28 1/2"	7.6
6300	0-300	10	3/4"	34 3/4"	11
	IN.-LBS.	IN.-LBS.			
60300	0-300	12 1/2	3/8"	16"	2.6
60600	0-600	25	1/2"	16"	2.7
61200	0-1200	50	1/2"	17 1/2"	2.9
61800	0-1800	50	1/2"	20 1/2"	3.6
62400	0-2400	50	3/4"	28 1/2"	7.6
63600	0-3600	100	3/4"	34 3/4"	11

SOFT-FACE HAMMERS

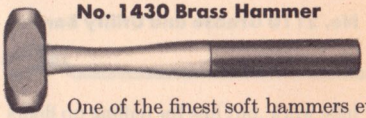


No. 1368 Rubber Mallet

A general utility mallet, especially useful for sheet metal, plastic parts, painted surfaces and other easily damaged objects. Neoprene synthetic head is tough, non-flaking, highly oil resistant, and long-lived. Distinctive hourglass shape provides large striking faces. Length, 15". Weight, 1.46 Lbs.

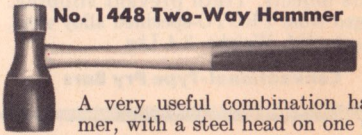
No. 1383 Plastic-Tip Hammer

Resilient plastic protects surfaces and parts. Has 1 9/32" round removable tips. Weight, .76 Lb. Tips Only: Round Type—1370C. Cross Pein Type—1370D.



No. 1430 Brass Hammer

One of the finest soft hammers ever designed. Weight, 1.75 Lbs.



No. 1448 Two-Way Hammer

A very useful combination hammer, with a steel head on one end and a rubber head on the other end. The ideal hammer for mounting tires and drawing rivets. Also used by plumbers, machinists and woodworkers. Length, 17". Weight, 2.6 Lbs.

1448B—Extra Rubber Head for Two-Way Hammer No. 1448. Weight, .28 Lb.

NUPLAFLEX PLASTIC-TIP HAMMERS

Ideal for Surfaces and Parts That Would be Marred, Scratched or Otherwise Damaged by a Metal Hammer, and Having Over

1,000 Uses

Complete hammers include two with soft tips and ten with tough tips —consisting of five pairs (the two in each pair having same head size but different weights). Extra tips—in tough, medium and soft grades—are for replacing worn-out tips and making all-purpose hammers with two types of tips. Nuplaflex hammers offer many advantages over rawhide, brass, lead and other plastic types. They are perfect for use on threads, soft metal, fenders, tires, leather, furs, and painted, polished or plated surfaces.

The revolutionary plastic used—Nuplaflex —has these important features: (1) Recovers original shape when bent, dented or cut; (2) Doesn't flake off under hard blows; (3) Lasts many times longer than most other types; (4) Positively safe from explosions; (5) Tips and heads are non-sparking and safe around explosive fumes; (6) Won't burn readily unless held in flame (Approved by Underwriters' Laboratories); (7) Oil and grease resistant; (8) Absorbs sting-causing vibration; (9) Has minimum rebound, reducing fatigue and speeding work.

Tips are anchored securely by an automatic locking device but are easy to detach. The streamlined head design is another feature.

Complete Nuplaflex Hammers

NO.	WEIGHT, LBS.	HEAD DIAM.	HEAD LENGTH	HANDLE LENGTH
WITH TOUGH GRADE TIPS				
1388(100)	.31	1″	3½″	11⅜″
1389(105)	.50	1″	3½″	11⅜″
1390(150)	.75	1½″	4⅜″	13″
1391(155)	1.00(1.25)	1½″	4⅜″	13″
1392(200)	1.25(1.50)	2″	4½″	14″
1393(205)	2.0	2″	4½″	14″,
1394(250)	2.0	2½″	5¼″	15″
1395(255)	3.5 (4.0)	2½″	5¼″	18″
1396(300)	3.0 (3.5)	3″	6¼″	18″
1397(305)	5.0 (6.0)	3″	6¼″	21″
WITH SOFT GRADE TIPS				
1398(150)	.75	1½″	4⅜″	13″
1399(200)	1.25(1.50)	2″	4½″	14″

NOTE: Catalog numbers in parenthesis are those used by the manufacturer of Nuplaflex materials. Hammer weight differences are shown also in parenthesis.

Nuplaflex Tips Only

TOUGH GRADE NO.	MEDIUM GRADE NO.	SOFT GRADE NO.	WT., LB.	HEAD DIAM.
1388T(10T)	1388M(10M)	1388S(10S)	.04	1″
1390T(15T)	1390M(15M)	1390S(15S)	.10	1½″
1392T(20T)	1392M(20M)	1392S(20S)	.23	2″
1394T(25T)	1394M(25M)	1394S(25S)	.39	2½″
1396T(30T)	1396M(30M)	1396S(30S)	.60	3″

Hammer Handles

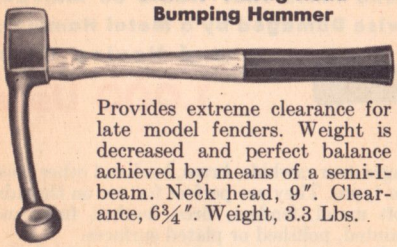
Made of tough, straight-grained, second-growth hickory. Shaped to give a sure grip.

NO.	FOR HAMMERS	EYE SIZE	LENGTH	WT., LB.
1370H	1370, 1375 & 1383	½″Diameter	12¼″	.23
1388H	1388 & 1389	11/32″x 9/16″	11⅜″	.14
1390H	1390, 1391 & 1398	½″x ¾″	13½″	.22
1392H	1392, 1393 & 1399	½″x ¾″	14″	.28
1394H	1394	¾″x1 1/16″	15″	.41
1396H	1395, 1396 & 1397	¾″x1⅛″	18″	.54
1416H	1416 & 1448	⅝″x1″	17⅜″	.48
1424H	1419, 1424 & 1427	11/32″x 11/16″	13⅛″	.18
1426H	1421, 1425, 1426 & 1428	13/32″x 13/16″	13″	.22
1429H	1429	⅜″x 11/16″	17⅜″	.30
1430H	1368 & 1430	7/16″x ⅞″	16⅛″	.39

PROTO TOOLS
LOS ANGELES

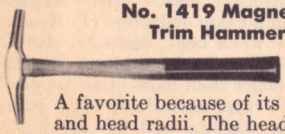
BODY AND FENDER HAMMERS

No. 1416 Long Head Bumping Hammer



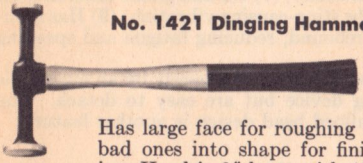
Provides extreme clearance for late model fenders. Weight is decreased and perfect balance achieved by means of a semi-I-beam. Neck head, 9″. Clearance, 6¾″. Weight, 3.3 Lbs.

No. 1419 Magnetic Trim Hammer



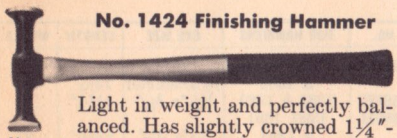
A favorite because of its long reach and head radii. The head is curved in the arc of a natural swing. Length of head, 5½″. Weight, .55 Lb.

No. 1421 Dinging Hammer



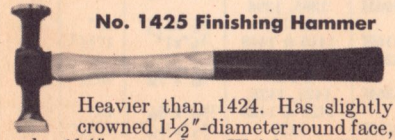
Has large face for roughing the bad ones into shape for finishing. Head is 6″ long, with 1¼″ and 1⅝″ round faces. Faces are slightly crowned. Weight, 1.00 Lb.

No. 1424 Finishing Hammer



Light in weight and perfectly balanced. Has slightly crowned 1¼″-diameter round face, and a 1$\frac{1}{16}$″ square face. Weight, .64 Lb.

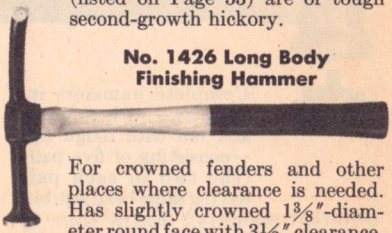
No. 1425 Finishing Hammer



Heavier than 1424. Has slightly crowned 1½″-diameter round face, and a 1⅛″ square face. Weight, .90 Lb.

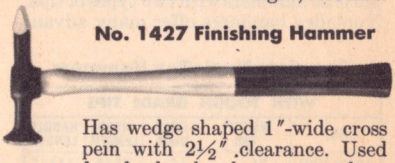
These hammers are forged from special alloy steel and are designed to speed and simplify repairs. They have good balance, and proper weight and clearances. Handles (listed on Page 53) are of tough second-growth hickory.

No. 1426 Long Body Finishing Hammer



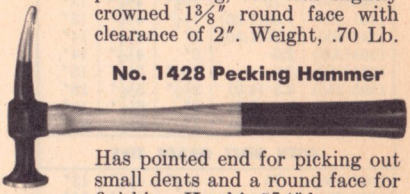
For crowned fenders and other places where clearance is needed. Has slightly crowned 1⅜″-diameter round face with 3½″ clearance, and a round cross pein, 1⅛″ wide, with 4″ clearance. Weight, 1.03 Lbs.

No. 1427 Finishing Hammer



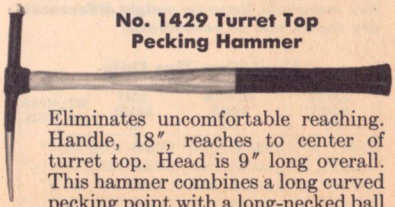
Has wedge shaped 1″-wide cross pein with 2½″ clearance. Used for fender beads, corner along panel beading, etc. Has slightly crowned 1⅜″ round face with clearance of 2″. Weight, .70 Lb.

No. 1428 Pecking Hammer



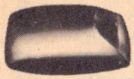
Has pointed end for picking out small dents and a round face for finishing. Head is 5⅞″ long overall. Slightly crowned round face is 1½″ in diameter. Weight, .86 Lb.

No. 1429 Turret Top Pecking Hammer

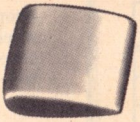


Eliminates uncomfortable reaching. Handle, 18″, reaches to center of turret top. Head is 9″ long overall. This hammer combines a long curved pecking point with a long-necked ball pein. Weight, .88 Lb.

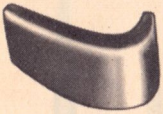
BODY AND FENDER TOOLS


1452

1454


1457

1453


1455

1458

All Dollies Are Forged of Alloy Steel, Hardened and Tempered, and Polished on Working Surfaces. They Maintain Smooth Surfaces Over Long Periods.

Dolly Blocks

No. 1452 Egg-Shaped Dolly

A very useful and popular shape, with a great many different curves and angles. Size, 1⅝″x2½″x3¾″. Weight, 3.1 Lbs.

No. 1453 Railroad or General Purpose Dolly

Has a large variety of radii, perfect hand fit, thin beading edge, and 7½ square inches on largest face. Heavy weight is ideal for bumping out dents. Size, 2⅜″x 2¾″x2 $^{31}/_{32}$″. Weight, 2.9 Lbs.

No. 1454 Radius Dolly

Useful design, with many radii. One side and bottom are flat for dinging flat surfaces. Both ends high crowned. Size, 1 $^{9}/_{32}$″x 2 $^{3}/_{16}$″x4½″. Weight, 2.9 Lbs.

No. 1455 Bead Dolly

Another popular dolly, used for beads or flanges on fenders. Flat side works under long curve of fender. Thin edge is useful for corners and beading. Size, 1⅞″x2 $^{29}/_{32}$″x 4 $^{7}/_{16}$″. Weight, 2.4 Lbs.

No. 1457 Shrinking Dolly

The unique shape and low crown make this dolly ideal for shrinking body metal, and for raising beads and molding. Size, 1¼″x 3 $^{1}/_{16}$″x3 $^{5}/_{16}$″. Weight, 2.2 Lbs.

No. 1458 Semi-Elliptical Heel Dolly

Provides two flat and two crowned working surfaces. Very useful in restricted places. Suitable for shrinking metal. Size, 1 $^{3}/_{16}$″x 2⅜″x3¼″. Weight, 2.2 Lbs.

No. 1526 Panel Cutting Chisel

A rugged alloy steel ripping chisel that eliminates replacement of delicate cutters. Length, 14″. Weight, 1.14 Lbs.

1411 1412 1413

Wood Paddles for Making Solder Fills

Treated for smooth flow.

NO.	WORKING AREA	LENGTH	WT., LB.
1411	Flat, 1 $^{11}/_{16}$″x3¼″	7¾″	.11
1412	Curved, 1 $^{1}/_{16}$″x3¼″	7¾″	.09
1413	Flat, 1″x3¼″	7¾″	.09

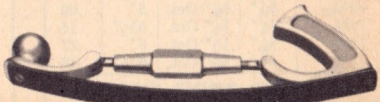
No. 1400SP Solder Paddle Set

Three paddles listed above. Wt., .40 Lb.

No. 1501 Flexible Flat Straight File

Fast cutting type for all kinds of body, fender and sheet metal work. Has curved teeth on both sides. Length, 14″. Width, 1⅜″. Weight, .70 Lb.

No. 1509 Adjustable File Holder

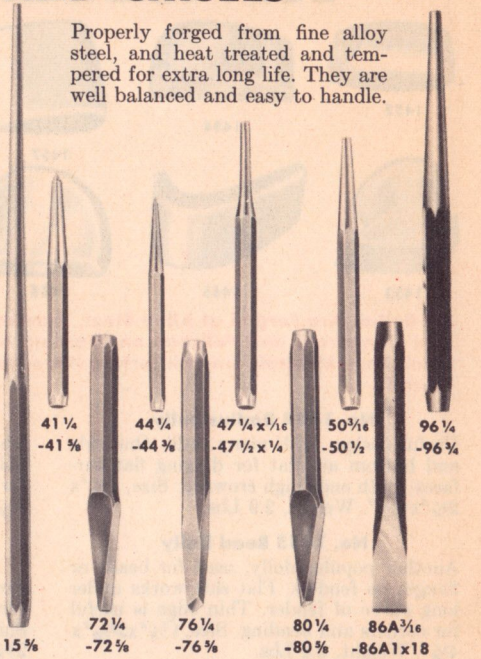


Made of aluminum, this fender file holder is light but strong. Simple adjustment makes file convex, concave or flat. Length, 16″. Weight, 1.86 Lbs.

PROTO TOOLS
REG U.S. PAT OFF. LOS ANGELES MADE IN U.S.A.

PUNCHES AND CHISELS

Properly forged from fine alloy steel, and heat treated and tempered for extra long life. They are well balanced and easy to handle.



ALIGNING PUNCH

NO.	POINT	STOCK	LGTH.	WT.,LBS.
155/8	3/16"	5/8" Oct.	16"	.98

CENTER PUNCHES

411/4	....	1/4" Oct.	41/4"	.05
415/16	....	5/16" Oct.	45/8"	.09
413/8	....	3/8" Oct.	47/8"	.13
417/16	....	7/16" Oct.	51/4"	.19
411/2	....	1/2" Oct.	55/8"	.26
415/8	....	5/8" Oct.	6"	.44

PRICK PUNCHES

441/4	....	1/4" Oct.	43/4"	.05
445/16	....	5/16" Oct.	5"	.09
443/8	....	3/8" Oct.	51/4"	.13

RIVET OR PIN PUNCHES

471/4x1/16	1/16"	1/4" Oct.	43/8"	.05
471/4x3/32	3/32"	1/4" Oct.	43/4"	.05
475/16x1/8	1/8"	5/16" Oct.	51/4"	.09
475/16x5/32	5/32"	5/16" Oct.	55/8"	.10
473/8x3/16	3/16"	3/8" Oct.	61/8"	.15
477/16x7/32	7/32"	7/16" Oct.	67/16"	.20
471/2x1/4	1/4"	1/2" Oct.	7"	.30

STARTING PUNCHES

503/16	1/16"	3/16" Oct.	41/4"	.03
501/4	3/32"	1/4" Oct.	45/8"	.05
505/16	1/8"	5/16" Oct.	51/8"	.10
503/8	3/16"	3/8" Oct.	55/8"	.15
507/16	7/32"	7/16" Oct.	6"	.23
501/2	1/4"	1/2" Oct.	61/2"	.31

LONG TAPER DRIFT PUNCHES

961/4	3/32"	1/4" Oct.	10"	.11
965/16	1/8"	5/16" Oct.	10"	.18
963/8	3/16"	3/8" Oct.	10"	.27
967/16	7/32"	7/16" Oct.	10"	.35
961/2	1/4"	1/2" Oct.	10"	.46
965/8	5/16"	5/8" Oct.	10"	.73
963/4	3/8"	3/4" Oct.	10"	1.02

RIVET CUTTER

NO.	CUT	STOCK	LGTH.	WT.,LBS.
303/4x12	7/8"	3/4" Oct.	12"	1.50

CAPE CHISELS

721/4	5/32"	1/4" Oct.	41/2"	.05
725/16	3/16"	5/16" Oct.	5"	.09
723/8	1/4"	3/8" Oct.	51/2"	.15
721/2	5/16"	1/2" Oct.	6"	.27
725/8	3/8"	5/8" Oct.	61/2"	.46

DIAMOND POINT CHISELS

761/4	5/32"	1/4" Oct.	41/2"	.06
765/16	3/16"	5/16" Oct.	5"	.10
763/8	1/4"	3/8" Oct.	51/2"	.15
761/2	5/16"	1/2" Oct.	6"	.28
765/8	3/8"	5/8" Oct.	61/2"	.48

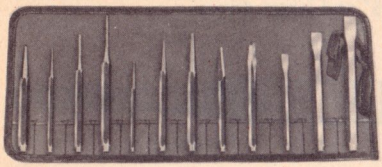
ROUND NOSE CHISELS

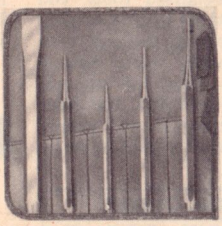
NO.	CUT	STOCK	LGTH.	WT.,LBS.
801/4	5/32"	1/4" Oct.	41/2"	.06
805/16	3/16"	5/16" Oct.	5"	.10
803/8	1/4"	3/8" Oct.	51/2"	.14
805/8	3/8"	5/8" Oct.	61/2"	.49

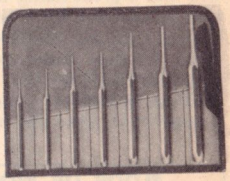
COLD CHISELS

86A3/16	1/4"	3/16" Oct.	41/4"	.03
86A1/4	5/16"	1/4" Oct.	41/2"	.06
86A5/16	3/8"	5/16" Oct.	5"	.10
86A3/8	7/16"	3/8" Oct.	51/2"	.17
86A7/16	1/2"	7/16" Oct.	6"	.24
86A1/2	5/8"	1/2" Oct.	61/2"	.35
86A5/8	3/4"	5/8" Oct.	7"	.57
86A3/4x71/2	7/8"	3/4" Oct.	71/2"	.88
86A3/4x12	7/8"	3/4" Oct.	12"	1.44
86A7/8x8	1"	7/8" Oct.	8"	1.26
86A7/8x12	1"	7/8" Oct.	12"	1.94
86A1x8	13/16"	1" Oct.	8"	1.64
86A1x18	13/16"	1" Oct.	18"	4.0

PUNCH AND CHISEL SETS







No. 2 Set

A fine selection, providing the twelve punches and chisels used most frequently in practically all types of work. Includes Center Punch 41 3/8; Rivet or Pin Punches 47 1/4 x 3/32, 47 5/16 x 1/8 and 47 3/8 x 3/16; Starting Punches 50 3/16, 50 5/16 and 50 3/8; Cape Chisel 72 5/16; Diamond Point Chisel 76 5/16, and Cold Chisels 86A 1/4, 86A 3/8 and 86A 7/16 in a red Vinyl Kit No. 2402. Weight, 1.62 Lbs.

No. 3 Set

A useful set, including Center Punch 41 3/8; Rivet or Pin Punches 47 5/16 x 1/8 and 47 3/8 x 3/16; Starting Punch 50 5/16, and Cold Chisel 86A 1/2 in Vinyl Kit No. 2411. Weight, .97 Lb.

No. 47A Set

A useful, complete set of seven rivet or pin punches. Includes 47 1/4 x 1/16, 47 1/4 x 3/32, 47 5/16 x 1/8, 47 5/16 x 5/32, 47 3/8 x 3/16, 47 7/16 x 7/32 and 47 1/2 x 1/4 in red Vinyl Kit No. 2403. Weight, 1.14 Lbs.

SCREW AND PIPE EXTRACTORS

9521-9529

How to Use

First Drill Hole.

Then Drive in Extractor and Turn Out the Stud.

These extractors, accurately broached from special alloy steels, are considered the most effective type obtainable because they are so easy to use. The sharp edges "bite" positively into any broken screws, studs, bolts, fittings, etc. You will save precious time and your good disposition on many occasions if you get all nine sizes.

NO.	SIZE OF SMALL END	SIZE OF SHANK	OVER-ALL LENGTH	SCREW, STUD OR BOLT SIZE	DRILL SIZE	MIN. DEPTH OF HOLE	PIPE SIZE	WT., LBS.
9521	1/8"	3/16"	2 5/16"	1/4, 5/16	1/8"	3/8"	----	.01
9522	11/64"	3/16"	2 5/8"	3/8	3/16"	1/2"	----	.02
†9523	13/64"	1/4"	2 7/8"	7/16	1/2"	1/2"	1/8"	.04
9524	19/64"	5/16"	3"	1/2	5/16"	1/2"	1/4"	.06
9525	11/32"	3/8"	3 1/4"	9/16, 5/8	13/32"	9/16"	3/8"	.10
9526	1/2"	1/2"	4 1/2"	3/4	9/16"	11/16"	1/2"	.23
9527	19/32"	5/8"	4 7/8"	7/8	5/8"	11/16"	1/2"	.40
9528	23/32"	3/4"	5 3/8"	1, 1 1/8, 1 1/4	3/4"	3/4"	3/4"	.65
9529	31/32"	1"	5 1/2"	1 3/8, 1 1/2	1"	7/8"	1"	1.12

†For Broken Alemite Fittings.

No. 9500A Screw Extractor Set

Five popular-size extractors—Nos. 9521, 9522, 9523, 9524 and 9525—with a handy rack for holding all five sizes. Weight, .26 Lb.

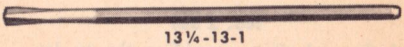
PROTO TOOLS
LOS ANGELES

PLUMBING TOOLS

In addition to these specialized tools, you will find a great many others in this catalog that are needed for plumbing, heating, ventilating and air conditioning work. Among them are pipe wrenches; flare nut and adjustable wrenches; box, open end and combination wrenches; punches; chisels; pliers; screwdrivers; gear and bearing pullers; hammers; pry bars; tool chests, boxes and kits; and socket wrench sets in 1/4", 3/8", 1/2" and larger drives.

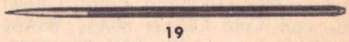
NO.	STOCK SIZE	WIDTH OF CUT	BLADE LENGTH	OVERALL LENGTH	WT., LBS.
FLOOR OR WOOD CHISELS					
57/16	7/16"	5/8"	4 1/2"	10"	.38
51/2	1/2"	3/4"	4 1/4"	10"	.54
55/8	5/8"	1"	3 3/4"	10"	.70
53/4	3/4"	1 3/16"	3 1/2"	10"	1.00
STAR DRILLS					
131/4	1/4"	1/4"	....	12"	.16
135/16	1/4"	5/16"	....	12"	.16
133/8	5/16"	3/8"	....	12"	.26
131/2	3/8"	1/2"	....	12"	.38
135/8	7/16"	5/8"	....	12"	.52
133/4	1/2"	3/4"	....	12"	.70
137/8	5/8"	7/8"	....	12"	1.07
13-1	3/4"	1"	....	12"	1.52
SCRATCH AWLS					
18	5/16"	....	....	7"	.17
19	3/16"	....	....	6 3/4"	.05
SOIL PIPE CHISELS					
371/2	1/2"	5/8"	2 1/8"	5 1/2"	.30
375/8	5/8"	3/4"	2 3/8"	6"	.48
373/4	3/4"	7/8"	2 7/8"	6 1/2"	.74
CONCRETE GADS					
843/4	3/4"	....	2 1/8"	12"	1.42
847/8	7/8"	....	2 1/2"	12"	1.84
84-1	1"	....	2 3/4"	12"	2.4
LEAD-PICKING TOOL					
112	1/2"	3/16"	2 3/8"	9"	.44
BENDING IRONS					
1351/2	1/2"	....	....	10 5/8"	.50
1355/8	5/8"	....	....	10 5/8"	.75

5 7/16-5 3/4

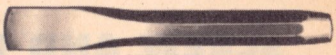


13 1/4-13-1

18

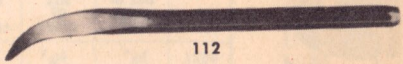


19

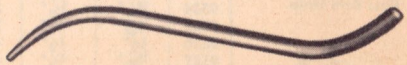


37 1/2-37 3/4

84 3/4-84-1



112



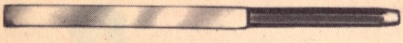
135 1/2-135 5/8

136

No. 136 Tubing Expander

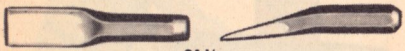
A very handy tool for plumbers and all others who work with tubing. The three steps expand the internal diameters of tubing to 1 1/4", 1 3/8" and 1 1/2". Length, 3 1/8". Weight, .86 Lb.

PLUMBING TOOLS

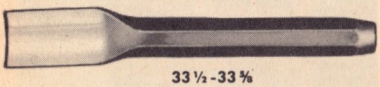


6½x11½-6⅝x18

14½x11½-14¾x14



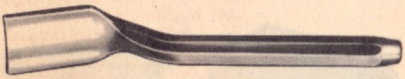
21½



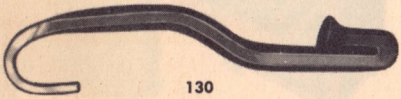
33½-33⅝

033½-033⅝

109



110



130

131⅝-131¾

132L-132R

All are forged from fine alloy steel. Yarning irons are slightly offset for clearance. Long calkers, for calking lead in hub of soil pipe, are ground both inside and out, and their concave blades fit 4″ pipe. Water main calkers are ground square, have an offset handle for knuckle clearance, and do a fast job of calking joints in cast iron mains. Left and right calkers are for use near walls or in corners.

NO.	STOCK SIZE	BLADE THICKNESS	BLADE WIDTH	BLADE LENGTH	OVERALL LENGTH	WT., LBS.
SPRING YARNING IRONS						
6½x11½	½″	1/16″-⅛″	⅝″	6½″	11½″	.43
6⅝x12	⅝″	3/32″-5/32″	¾″	7″	12″	.66
6⅝x18	⅝″	3/32″-3/16″	¾″	13″	18″	.75
OFFSET YARNING IRONS						
14½x11½	½″	1/16″-3/16″	⅝″	6¾″	11½″	.47
14⅝x12	⅝″	3/32″-¼″	11/16″	7¼″	12″	.72
14⅝x18	⅝″	3/32″-¼″	11/16″	12¾″	18″	.93
14¾x14	¾″	3/32″-5/16″	¾″	9½″	14″	1.08
CURVED PONY CALKERS (Inside & Outside)						
21½ In	½″	⅛″	¾″	1¼″	3″	.14
21½ Out	½″	⅛″	¾″	1¼″	3″	.14
LONG CALKERS (Inside & Outside)						
33½ In	½″	⅛″	¾″	1½″	5½″	.29
33½ Out	½″	⅛″	¾″	1½″	5½″	.29
33⅝ In	⅝″	5/32″	⅞″	1¾″	5¾″	.45
33⅝ Out	⅝″	5/32″	⅞″	1¾″	5¾″	.45
OFFSET CALKERS (Inside & Outside)						
033½ In	½″	⅛″	¾″	1½″	5⅝″	.30
033½ Out	½″	⅛″	¾″	1½″	5⅝″	.30
033⅝ In	⅝″	5/32″	⅞″	1⅝″	6¼″	.49
033⅝ Out	⅝″	5/32″	⅞″	1⅝″	6¼″	.49
WATER MAIN CALKER						
109	¾″	3/16″	1″	2 11/16″	8″	.88
BROAD CURVED NOSE CALKING IRON						
110	⅝″	⅛″	1½″	2″	8½″	.71
CEILING CALKER						
130	⅝″	5/32″	11/16″	1⅝″	10″	1.20
LONG GASKET CALKERS						
131⅝	⅝″	5/32″	⅞″	4″	9½″	.64
131¾	¾″	3/16″	1″	4¼″	9½″	.99
LEFT AND RIGHT CALKERS						
132L	⅝″	5/32″	⅞″	1⅝″	8⅞″	.87
132R	⅝″	5/32″	⅞″	1⅝″	8⅞″	.87

PROTO TOOLS
REG. U.S. PAT. OFF. LOS ANGELES MADE IN U.S.A.

"TOOLMOBILE"® MOBILE TOOL CABINET

New Model — No. 9968 — Featuring Interchangeable Drawers

You'll be mighty proud when you own a gleaming, sturdy "Toolmobile"—true mark of a professional tool user. Saving hours by taking needed tools to the job, and preventing tool losses, a "Toolmobile" soon pays for itself.

Biggest feature is the interchangeability of drawers, which makes every "Toolmobile" a custom-built cabinet for its owner. Easy-to-move drawer runners, that fit into notches spaced every 2″ from top to bottom, permit any of three basic sizes of drawers to be installed in any combination or arrangement. **No. 9968 is equipped with one shallow drawer and one medium drawer.** Extra drawers in packaged units, complete with runners and matching chrome handles, may be purchased with your "Toolmobile" or added later.

® Registered U. S. Pat. Off.

MORE BIG "TOOLMOBILE" FEATURES

1. Ruggedly constructed of heavy gauge welded steel.
2. Critical points strongly reinforced. Round corners, extra heavy channels across bottom (through which caster plates are bolted), double side walls, hemmed drawer edges and midfront stiffener assure rigidity and proper drawer alignment.
3. Shallow drawer, 21⅝″x16″x1½″ deep (inside), has perforated sections which can be punched out to form holes for drawer divider bolts.
4. Medium drawer, 21⅝″x16″x3½″ deep (inside), has "punch-out" bolt holes and reinforced bottom.
5. Deep drawer, 21⅝″x16″x5½″ deep (inside), has "punch-out" bolt holes and reinforced bottom.
6. Drawer divider set has two rigid slotted sides and four strong partitions which fit into slots to form various-sized compartments.
7. Four-roller drawers move at finger's touch. Double-supported roller axles take heavy load.
8. Drawers will not slide open easily when cabinet is moved about.
9. Semi-soft, tough rubber, 5″ casters on husky ball-bearing swivel plates—each held by four bolts—roll easily and quietly, and reduce tool jarring.
10. Two casters have handy foot-operated brakes.
11. Single-lock front closes entire cabinet. Folds and slides out of way under top when unlocked.
12. Masonite cover on 18″x28″ top provides excellent working surface and protects cabinet and tools.
13. Rail around three sides of top keeps tools from rolling off and holds socket wrench racks.
14. Two 15″ handles make cabinet easy to maneuver.
15. Useful light assembly has flexible gooseneck that reaches over front for lighting drawers, a chrome plated reflector, two outlets and an 8′ cord.
16. Finish is lustrous red, with smart chrome trim.
17. Card entitles you to nameplate bearing your name.

NOTE: Above Shows No. 9968 "Toolmobile," PLUS One No. 9968-3 Drawer, a No. 9968-6 Door and a No. 9968-5 Light Unit. No. 9968 Alone, as Shown Below, Has Two Drawers.

9968 Open — 9968 Closed

ITEM NUMBERS AND DESCRIPTIONS

9968 "Toolmobile" Cabinet with Masonite Cover, Drop Front, Lock, Two Keys, Shallow Drawer, Medium Drawer, Four Drawer Runners, One Drawer Divider Set, Four Casters and Two Handles. 28″x18″x36⅞″ High. Wt., 112 Lbs.

9968-1 Shallow Drawer and Runners. Wt., 8.0 Lbs.
9968-2 Medium Drawer and Runners. Wt., 9.8 Lbs.
9968-3 Deep Drawer and Runners. Wt., 12 Lbs.
9968-4 Drawer Divider Set. Wt., .90 Lb.
9968-5 Complete Light Assembly. Wt., 4.4 Lbs.
9968-6 Door for Bottom Half. Wt., 4.7 Lbs.

ALL-PURPOSE TOOL CHESTS

Both No. 9997 and No. 9990 are top quality tool chests—designed for professional tool users. They should not be confused with cheaper chests of inferior construction on the market.

Great strength and rigidity are secured by the use of heavy-gauge sheet steel, welded construction and reinforcing (9997 has double-walled sides and double-reinforced bottom and top).

Designed for maximum utility of space, there are no wasted areas in either chest. Strong, telescope-action slides make the drawers easy to move. Side handles have a comfortable grip and are attached to husky baseplates.

Both chests have a durable red finish and corners are rounded to give a streamlined appearance. A card entitles every owner to a free nameplate bearing his name.

9997

No. 9997 Master Tool Chest

This chest has many features that make it strong, safe, convenient and good-looking. It has two large drawers—23¼″x10¾″x2¾″ deep (inside)—each divided into two sections by a sturdy welded partition, and four small drawers—11⅛″x10⅝″x1¼″ deep (inside), each partitioned into three compartments. A 21 11/16″x8 1/16″ tote tray, with a rigid non-tilt handle, is included for carrying tools to the job. It has three compartments, two of them suitable for sockets. The top section of the chest has three large compartments, one for holding the tote tray. The double-rib reinforced top overlaps the balance of the chest to make a tight seal. It is supported on a full-length, heavy-duty, piano-type hinge. A one-piece drop front covers all drawers when the top is lowered and swings inside the lid when the chest is opened. A strong tumbler lock secures the entire chest in three places. Dimensions, 27″x12″x15″ high. Weight, 70 Lbs.

9990

No. 9990 Master Tool Chest

With provisions for both midget and very large tools, this chest is noted for its versatility. It has two small drawers—3¾″x10 5/16″x 15/16″ deep (inside), one medium drawer—16 9/16″x10⅛″x2 1/16″ deep (inside), a larger drawer—20 9/16″x10⅛″x2¼″ deep (inside), and a large tool compartment in the top half—24⅛″x11 1/16″x7″ deep (inside). A 23⅛″x5⅞″ x1⅜″ deep (inside) tray has compartments for sockets and other small tools. It swings up and out of the way when the lid is opened. A raise front covers the bottom drawers and slides under the drawers when not in use. This front and the top lid can be padlocked to a strong hasp, securing the entire chest. Dimensions, 24½″x11½″x13⅜″ high. Weight, 37 Lbs.

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TOOL CHESTS AND SOCKET RACKS

No. 9989 Master Tool Chest

Made of sheet steel, welded and riveted; dark red baked enamel finish. Hinged tray swings up with lid. Removable tray gives easy access to large interior.

Overall dimensions: 9″ deep, 11½″ wide, 20½″ long. Hinged tray 1¼″ deep, 5½″ wide, 19″ long. Front tray 1½″ deep, 5½″ wide, 19″ long. Compartment 6″ deep, 11″ wide, 20″ long. Fixed tray in top space 2½″ deep, 4¾″ wide, 20″ long. Each tray and bottom compartment have separate section for sockets or small tools. Heavy hasp fits over staple on hinged front to lock chest securely. Strong folding handles. Weight empty, 20 Lbs.

9989

No. 9980 Utility Tool Chest

22¼″ long, 9″ wide, 6½″ high, with drop front and drop handles at each end. Dark red wrinkle finish. Heavy-gauge steel. Weight empty, 11 Lbs.

9980

Socket Racks

Made with clip on back, which slips over edge of box or partition. Can be carried on side of tote tray or can be put in a convenient place on wall or bench. Sockets fit firmly on rack. Made of heavy sheet steel, dark red baked enamel finish.

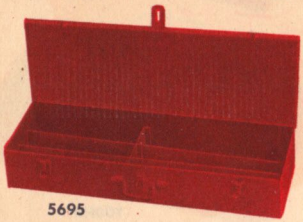
No. 5297—Cub Socket Rack, 18¼″ long; has 17 clips for sockets with ⅜″ square drive. Weight, .53 Lb.

No. 5497—Standard Socket Rack, 19¼″ long; has 17 clips for sockets with ½″ square drive. Weight, .62 Lb.

5297 & 5497

STEEL TOOL BOXES FOR SOCKET SETS

5894



5695

5495

5494

5295

5294

4795

All socket set boxes are made of sturdy heavy-gauge steel and have red baked enamel finish.

No. 5894 Extra Heavy-Duty Tool Box

For 1″ square drive extra heavy-duty and ¾″ drive heavy-duty sockets, handles and attachments. Made extra heavy throughout — welded, riveted and strongly reinforced. Dimensions, 30″x8¼″x5″. Weight, 21 Lbs.

No. 5695 Heavy-Duty Tool Box

For ¾″ drive heavy-duty sockets, handles and attachments. Construction throughout is extra heavy. Has five convenient compartments. Cover is held shut by two spring catches and a padlock hasp. Handle folds out of way when not in use. Dimensions, 22½″x8″x3¾″. Weight, 7.4 Lbs.

No. 5495 Standard Tool Box

For ½″ drive standard sockets, handles and attachments. Die-formed one-piece construction, end reinforcing flanges and rounded corners all add strength. Has two socket compartments, speeder holder in lid, spring hasp and husky handle on top. Dimensions, 19⅜″x7¼″x2⅜″. Weight, 4.1 Lbs.

No. 5494 Junior Standard Tool Box

A smaller box than No. 5495, but has room for a large number of ½″ drive standard sockets and a few handles and attachments. Dimensions, 17″x 3″x2″. Weight, 1.86 Lbs.

No. 5295 Cub Tool Box

For ⅜″ drive cub sockets, handles and attachments. Strength is increased by die-formed one-piece construction, end reinforcing flanges and rounded corners. Has socket compartment and a spring hasp. Dimensions, 17⅞″x5¼″x1⅜″. Weight, 1.83 Lbs.

No. 5294 Junior Cub Tool Box

Smaller than No. 5295. Holds large number of ⅜″ drive cub sockets and a few attachments. Dimensions, 10¼″x2¼″x1¼″. Weight, .83 Lb.

No. 4795 Midget Tool Box

For ¼″ drive midget sockets, handles and attachments. Keeps smaller tools in orderly array and separated from others. Dimensions, 6¾″x2¼″x1″. Weight, .52 Lb.

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HIP-ROOF BOXES AND FLEXIBLE KITS

Nos. 9970 and 9971 Hip-Roof Tool Boxes

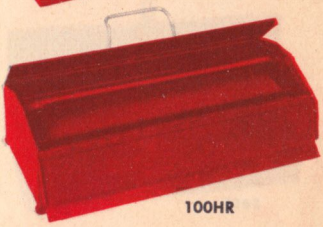
Ideal for any tool user, having room for an amazing number of tools. Made of heavy-gauge steel, with strong full-length hinges. Handy tote tray lifts out. Finish is red. Made in two sizes.

NO.	DIMENSIONS	WT., LBS.
9970	20″x6″x5¼″	6.7
9971	19″x7″x8¾″	9.3

9971

No. 100HR Hip-Roof Tool Box

Handy for taking tools to job. Tote tray, which fits inside top, has socket compartment 13½″ long and full-length compartment 2″ wide. Box is made of heavy-gauge steel, and is 7⅜″x8½″x22″. Handles hold box shut while carrying. Finish is red. Weight, 11 Lbs.



100HR

Vinyl Plastic Flexible Kits for Tool Sets

These kits are the finest obtainable for storing and carrying tools. The use of vinyl plastic offers many advantages. It has amazing durability and is noted for long wear. It is flexible, won't crack or peel, is scratch and scuff proof, resists oil and grease, and is easy to clean with soap and water. The kits are red with gold marking, and they retain their new, handsome appearance. They have strongly stitched seams and heavy tie strings.

The flaps are just a little longer than the tools they are designed for, eliminating fold-under flap objections but offering protection to and from sharp tools.

NO.	WIDTH	DEPTH	POCKETS	WT., LBS.
2401	25½″	12½″	23	.44
2402	16″	6¾″	12	.13
2403	10¼″	8″	7	.11
2404	12¼″	10″	7	.15
2405	10″	15″	5	.17
2406	22½″	15″	10	.35
2408	8″	9″	4	.10
2411	7″	7″	5	.07
2413	25″	18½″	15	.56

2401-2413 and 2450

No. 2450 Belt-Type Leather Kit

Handy for carrying tools on the job. Has four slots for holding with belt. Made of red chrome-tanned top-quality leather. Has three pockets, and is 7″ wide by 9″ deep. Weight, .16 Lb.

Chart of Standard Bolt, Nut and Screw Sizes, Corresponding to Nominal Sizes Marked on PROTO Wrenches and Sockets

To use this chart, locate thread diameter of bolt, nut or screw in extreme left or right column. Then move across to box which has proper identification of bolt, nut or screw at top of vertical column. The size in this particular box is the nominal opening size in inches of the PROTO wrenches and sockets that will fit.

NOMINAL OPENING SIZE OF WRENCH OR SOCKET IN INCHES TO FIT STANDARD BOLT HEADS, NUTS AND SCREW HEADS

AMERICAN STANDARD SERIES

THREAD DIAMETER OF BOLT, NUT OR SCREW	HEAVY		REGULAR		LIGHT					THREAD DIAMETER OF BOLT, NUT OR SCREW
	SQ. & HEX. BOLT HEADS	SQ. NUTS & HEX. NUTS, JAM NUTS & SLOTTED NUTS — USS NUTS	SQ. & HEX. BOLT HEADS (MACH. BOLT HEADS)	SQ. NUTS & HEX. NUTS, JAM NUTS & SLOTTED NUTS	HEX. NUTS, JAM NUTS, SLOTTED NUTS & CASTLE NUTS — NAT. FINE (SAE THR.)	HEX. FULL FINISHED CAP SCREW HEADS	SQ. & HEX. MACHINE SCREW NUTS & SQ. STOVE BOLT NUTS	SQ. SET SCREW HEADS	SQ. LAG BOLT HEADS	
#0 & 1	....	....	....	....	....	....	5/32	....	....	#0 & 1
#2 & 3	....	....	....	....	....	....	3/16	....	....	#2 & 3
#4	....	....	....	....	....	....	1/4	....	....	#4
#5 & 6	....	....	....	....	....	....	5/16	....	....	#5 & 6
#8	....	....	....	....	....	....	11/32	....	....	#8
#10	....	....	....	....	....	....	3/8	....	5/16	#10
#12	....	....	....	....	....	....	7/16	....	....	#12
1/4"	....	1/2	3/8	7/16	7/16	7/16	7/16	1/4	3/8	1/4"
5/16"	....	19/32	1/2	9/16	1/2	1/2	9/16	5/16	1/2	5/16"
3/8"	....	11/16	9/16	5/8	9/16	9/16	5/8	3/8	9/16	3/8"
7/16"	....	25/32	5/8	3/4	5/8	5/8	....	7/16	5/8	7/16"
1/2"	7/8	7/8	3/4	13/16	3/4	3/4	....	1/2	3/4	1/2"
9/16"	15/16	15/16†	7/8	7/8	7/8	13/16	....	9/16	7/8	9/16"
5/8"	1 1/16	1 1/16	15/16	1	15/16	7/8	....	5/8	15/16	5/8"
3/4"	1 1/4	1 1/4	1 1/8	1 1/8	1 1/16	1	....	3/4	1 1/8	3/4"
7/8"	1 7/16	1 7/16	1 5/16	1 5/16	1 1/4	1 1/8	....	7/8	1 5/16	7/8"
1"	1 5/8	1 5/8	1 1/2	1 1/2	1 7/16	1 5/16	....	1	1 1/2	1"
1 1/8"	1 13/16	1 13/16	1 11/16	1 11/16	1 5/8	1 1/2	....	1 1/8	1 11/16	1 1/8"
1 1/4"	2	2	1 7/8	1 7/8	1 13/16	1 11/16	....	1 1/4	1 7/8	1 1/4"
1 3/8"	2 3/16	2 3/16	2 1/16	2 1/16	2	....	....	1 3/8	....	1 3/8"
1 1/2"	2 3/8	2 3/8	2 1/4	2 1/4	2 3/16	....	....	1 1/2	....	1 1/2"
1 5/8"	2 9/16	2 9/16	2 7/16	2 7/16	....	....	....	....	....	1 5/8"
1 3/4"	2 3/4	2 3/4	2 5/8	2 5/8	....	....	....	....	....	1 3/4"
1 7/8"	2 15/16	2 15/16	2 13/16	2 13/16	....	....	....	....	....	1 7/8"
2"	3 1/8	3 1/8	3	3	....	....	....	....	....	2"
2 1/4"	3 1/2	3 1/2	3 3/8	3 3/8	....	....	....	....	....	2 1/4"
2 1/2"	3 7/8	3 7/8	3 3/4	3 3/4	....	....	....	....	....	2 1/2"
2 3/4"	4 1/4	4 1/4	4 1/8	4 1/8	....	....	....	....	....	2 3/4"
3"	4 5/8	4 5/8	4 1/2	4 1/2	....	....	....	....	....	3"

4- and 8-Point Sockets Are Used on Square Bolt Heads, Nuts and Screw Heads.

6- and 12-Point Sockets Are Used on Hexagon Bolt Heads, Nuts and Screw Heads.

†Does Not Apply to USS Nuts.

PROTO means
PROfessional
TOols

CATALOG NO. 5124M

551-WL-110

Issued by

PLOMB TOOL COMPANY

Los Angeles 54, Calif.

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IN U.S.A.